

1024 Object and 256 Interface

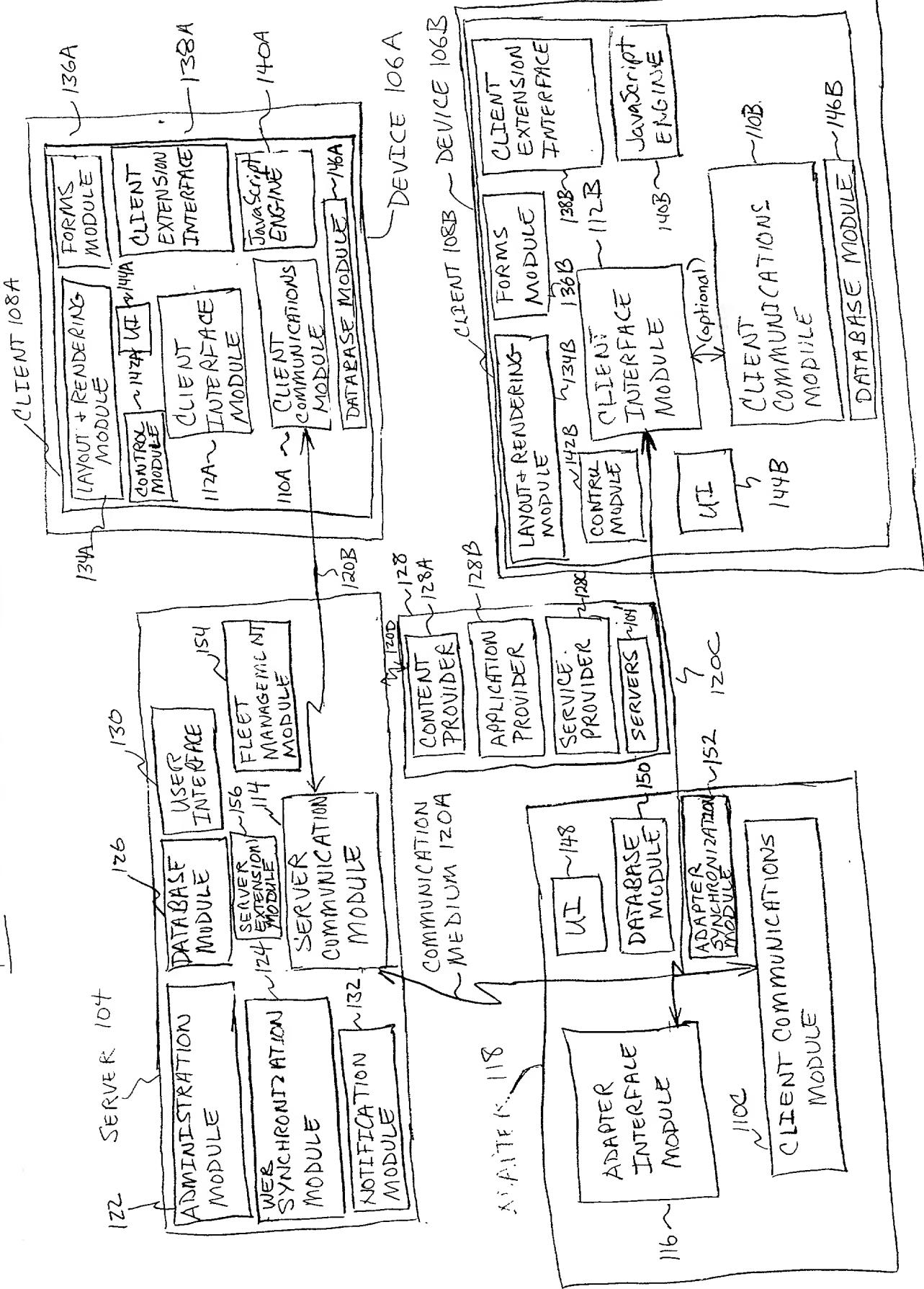


FIG. 1A

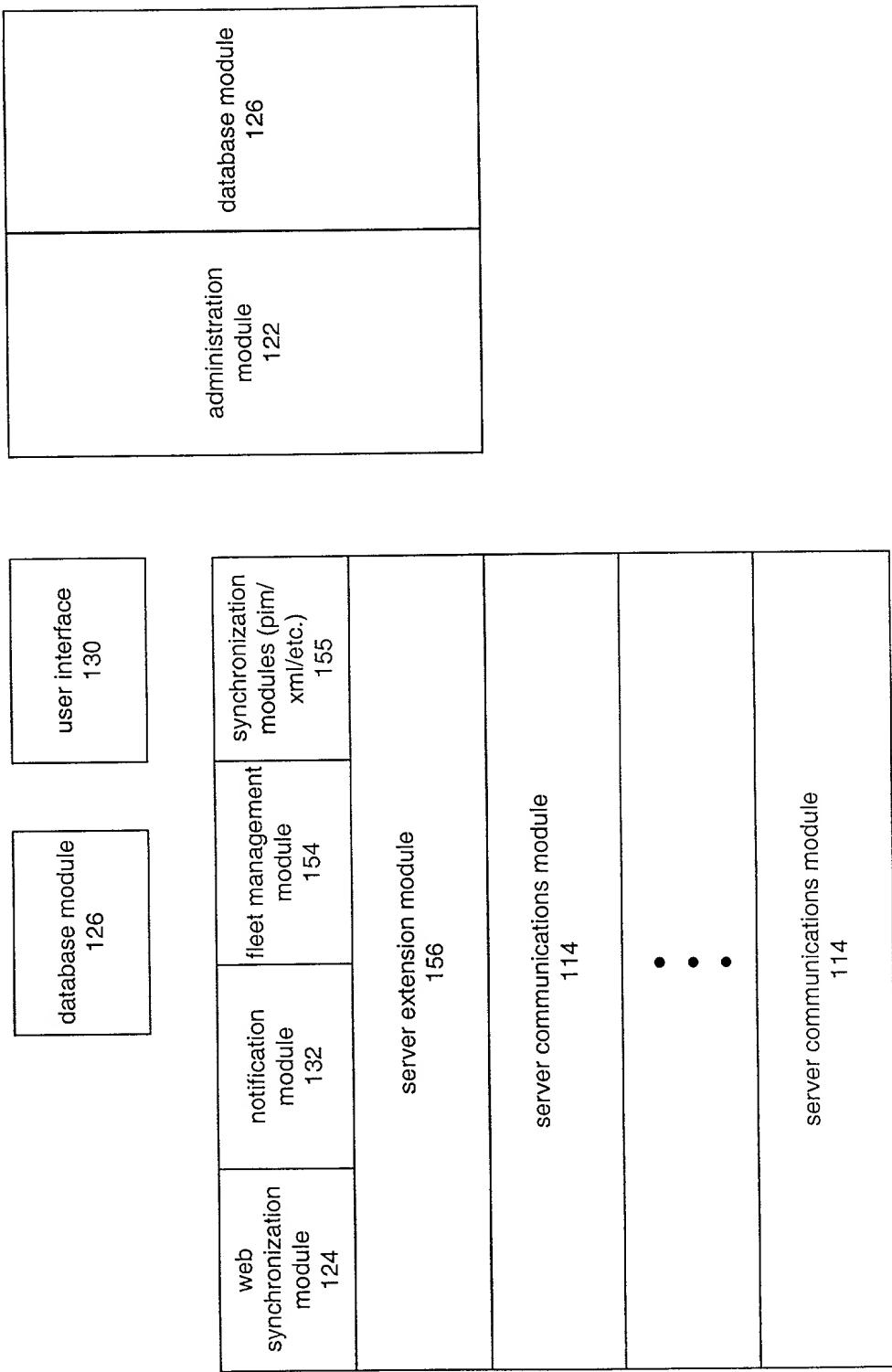


FIG. 1B

Data Processing Unit 103A

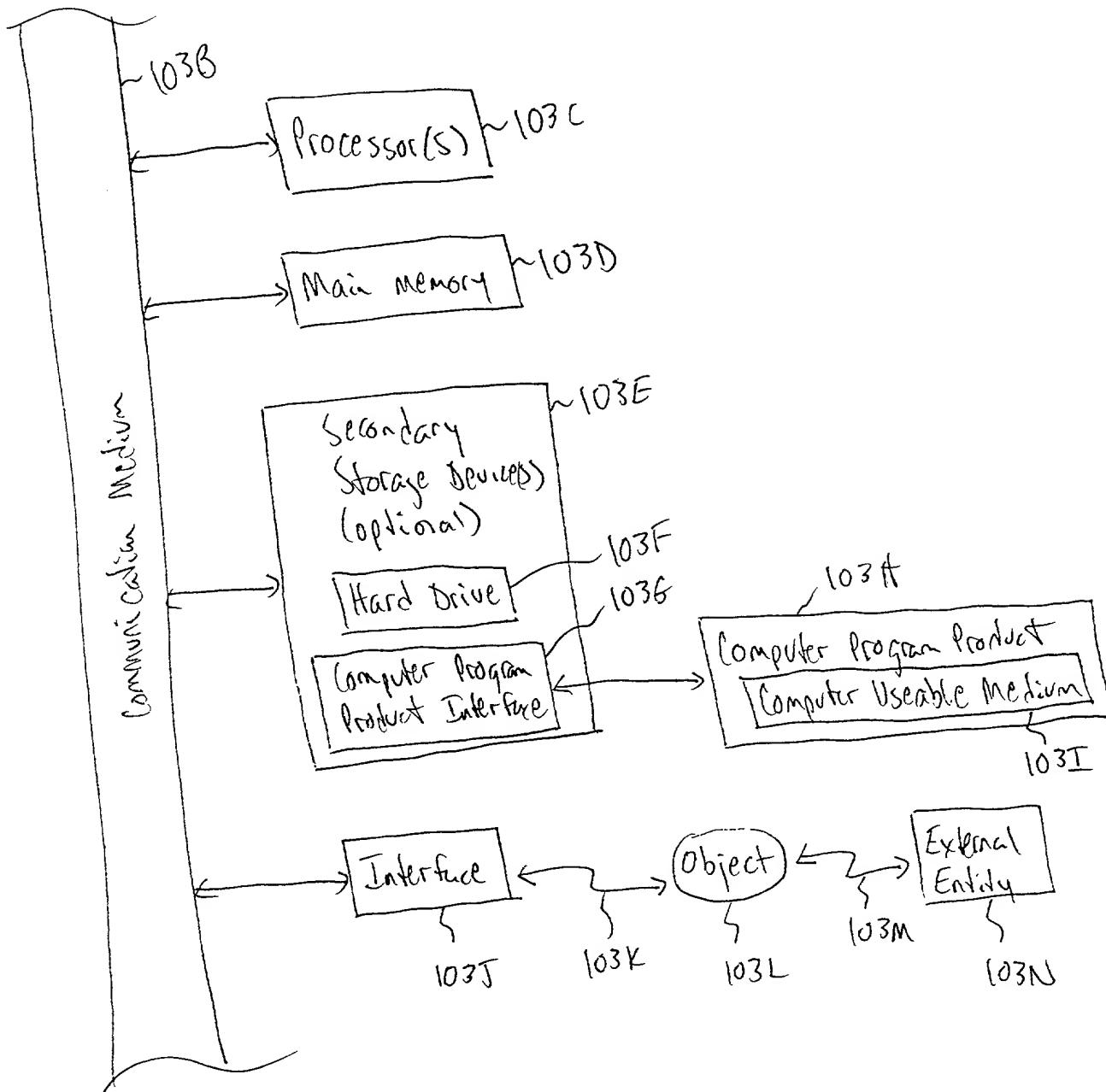
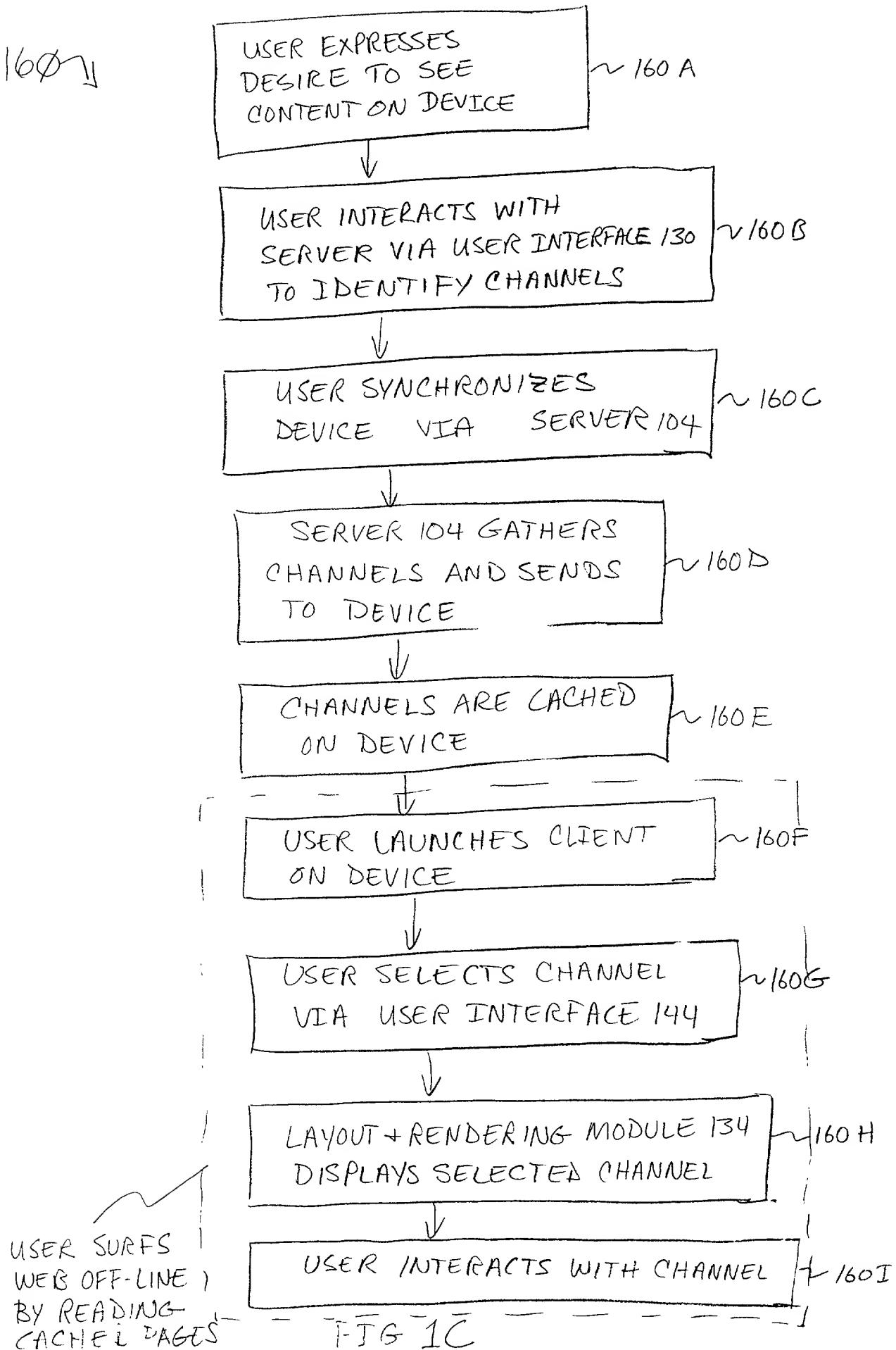


FIG. 1B1



160 I



PAGE IS DISPLAYED BY
USER INTERFACE 144 THAT
CONTAINS FORM ELEMENTS

~162A



USER ENTERS DATA/COMMANDS
INTO FORM ELEMENTS VIA
USER INTERFACE 144

~162B



FORMS MODULE 136 CACHES THE
DATA/COMMANDS FOR LATER
SYNCHRONIZATION

~162C



CONTROL MODULE 142 PROVIDES
AN APPROPRIATE NOTIFICATION

~162D



FORMS MODULE 136 MAINTAINS THE
STATUS OF FORMS AND MANAGES
FORMS

~162E

FIG. 1D

160 I
↓

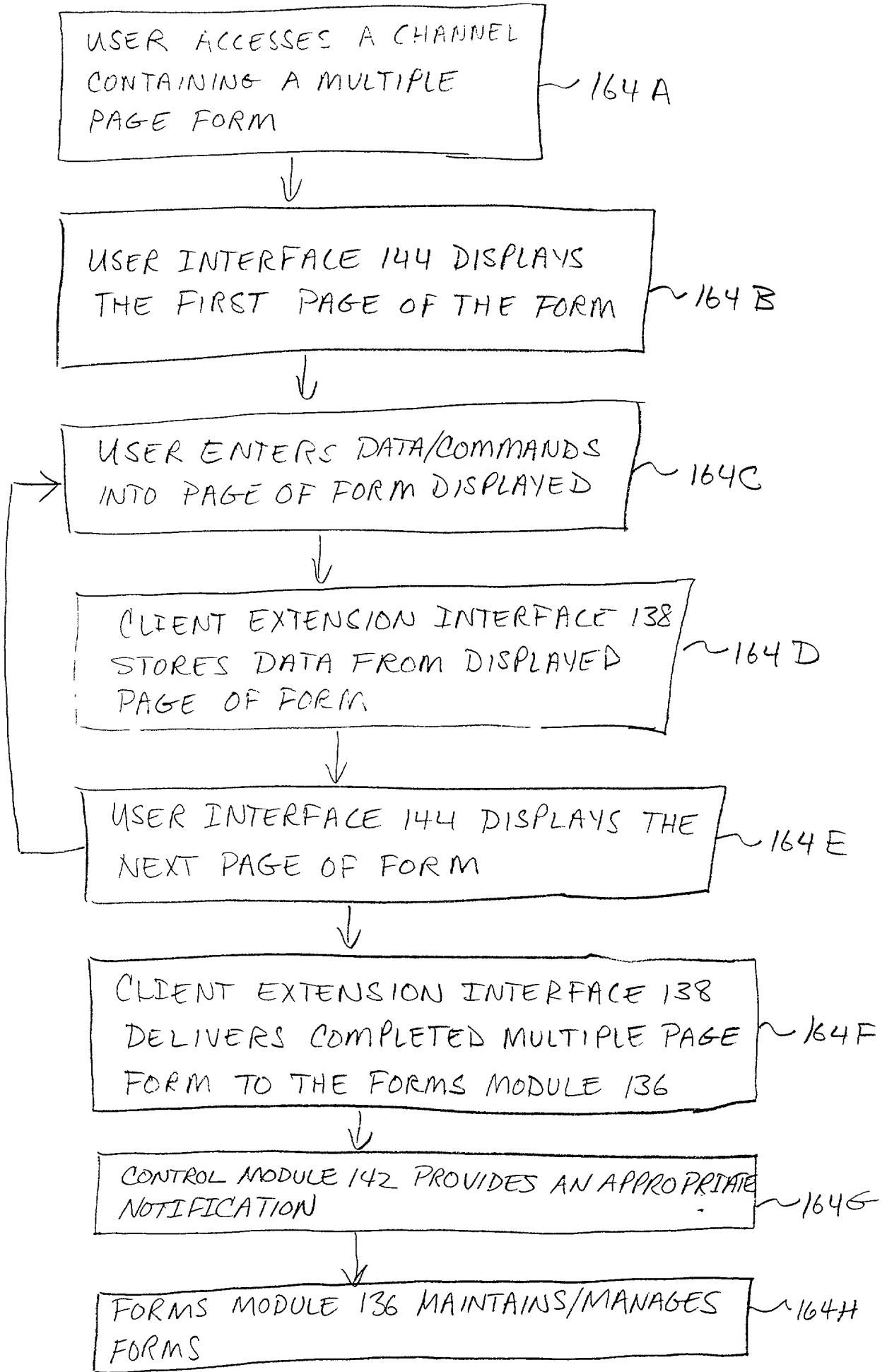


FIG. 1E

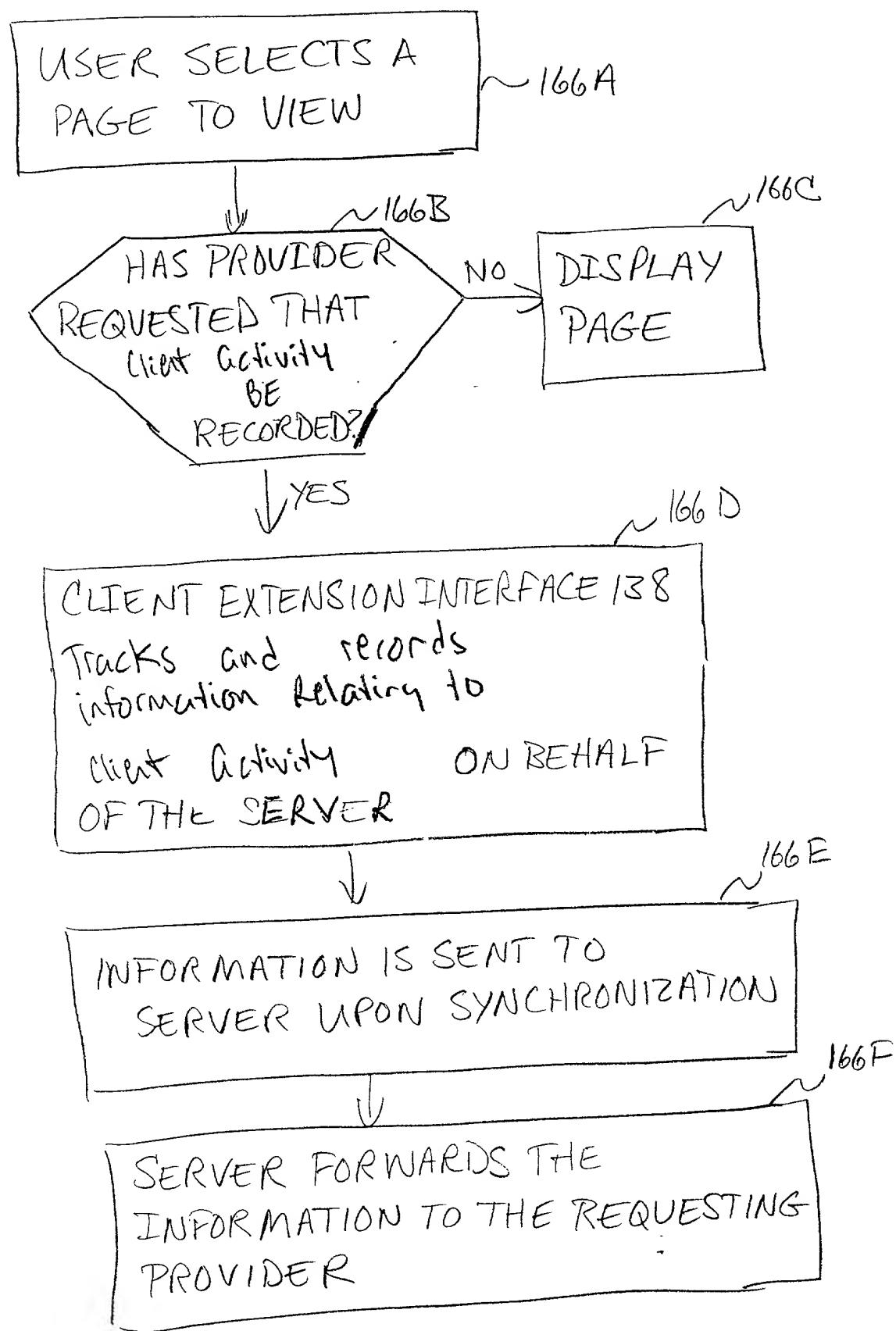


FIG. 1F1

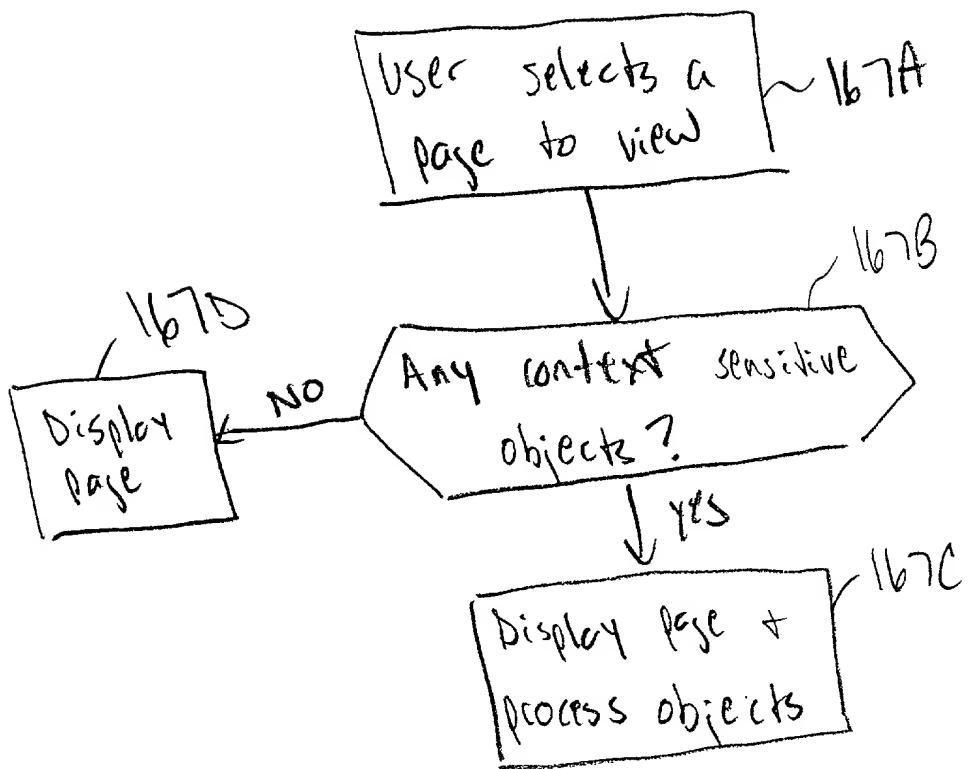


FIG. 1F2

168A

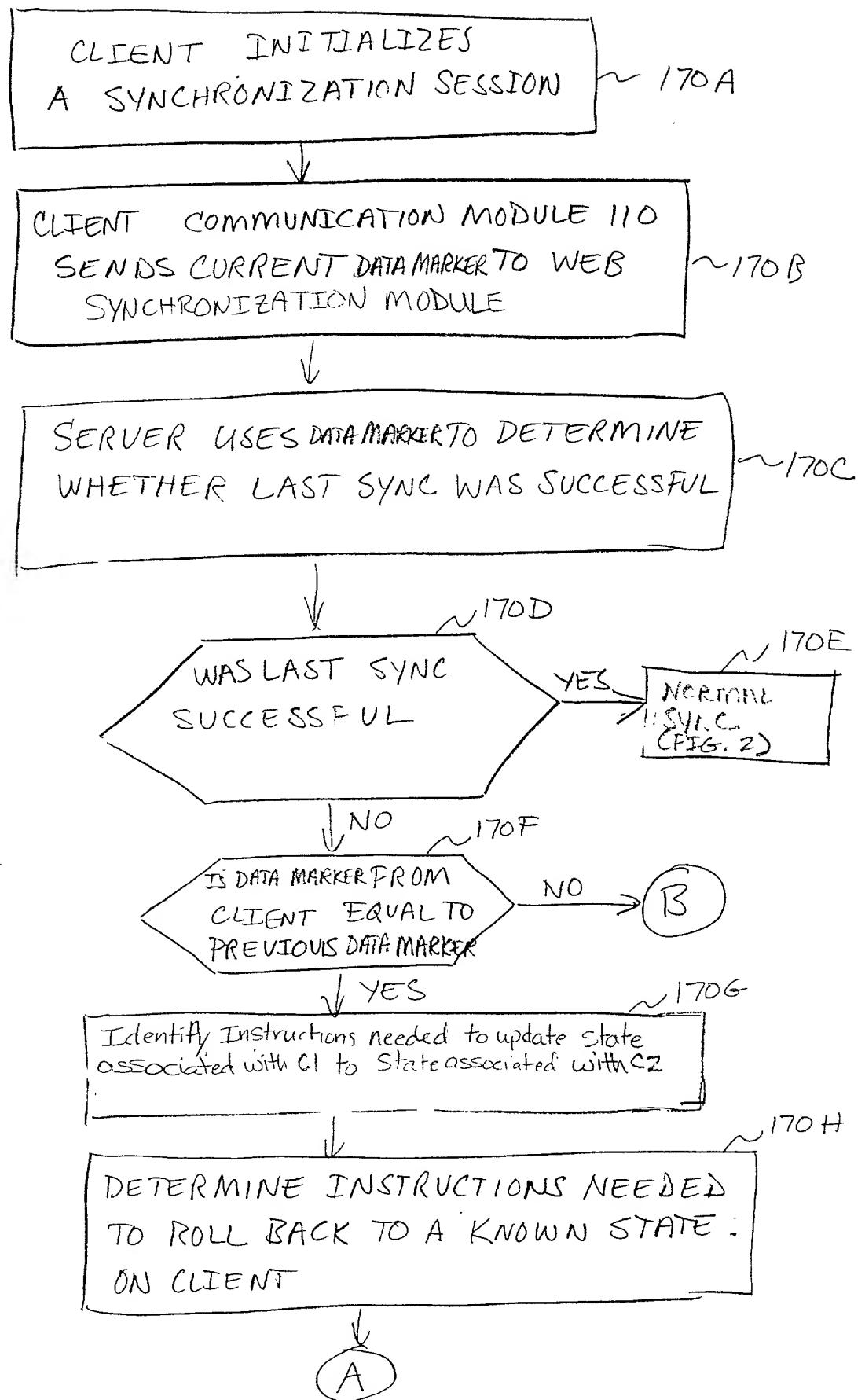
CLIENT INITIALIZES A SYNC
AND GIVES A SERVER A
NULL DATA MARKER

168A

SERVER TELLS CLIENT WHICH
CLIENT DATABASES IT WISHES
TO TRACK AND SENDS DATA MARKER [c]

168B

170 J



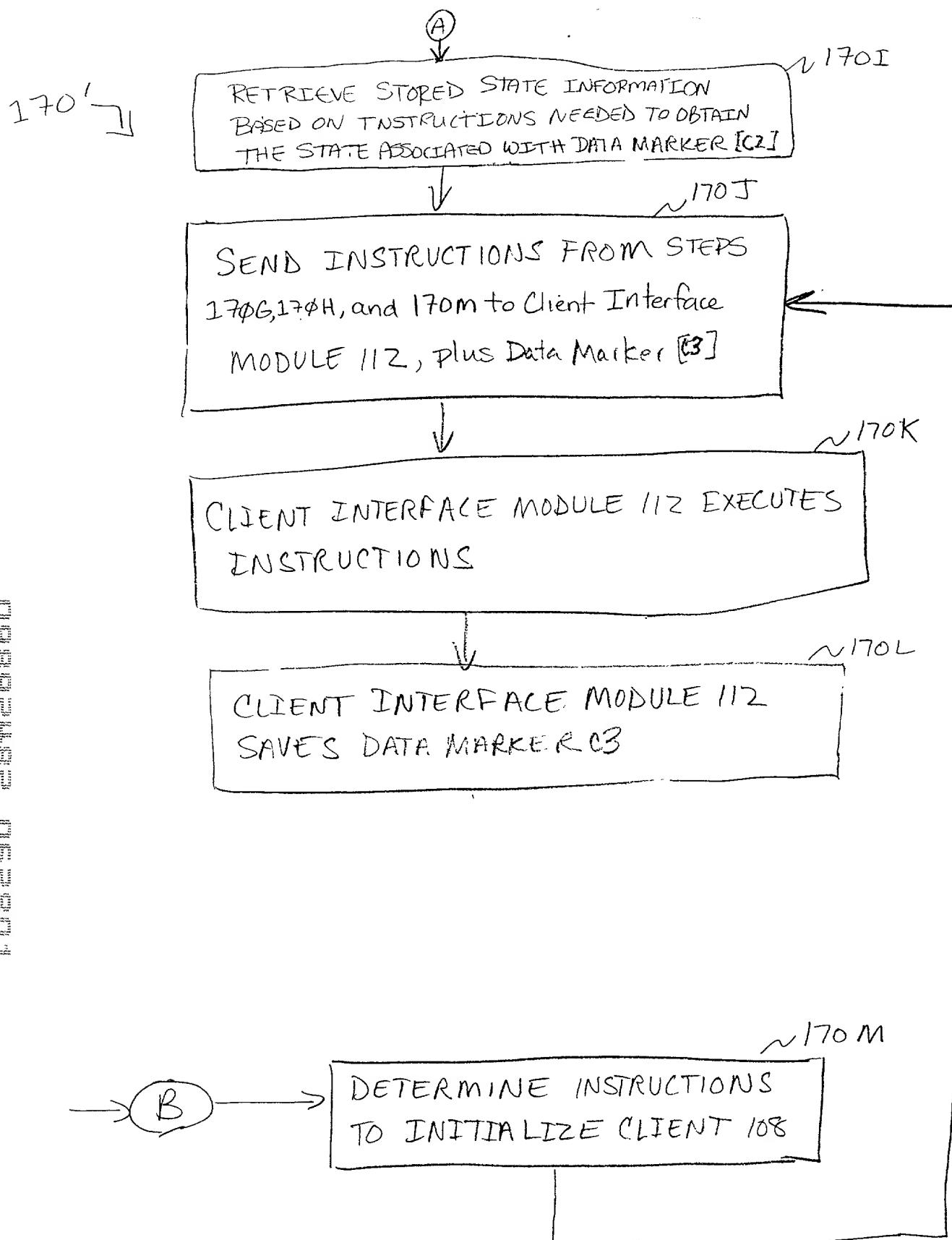


FIG. 1H2

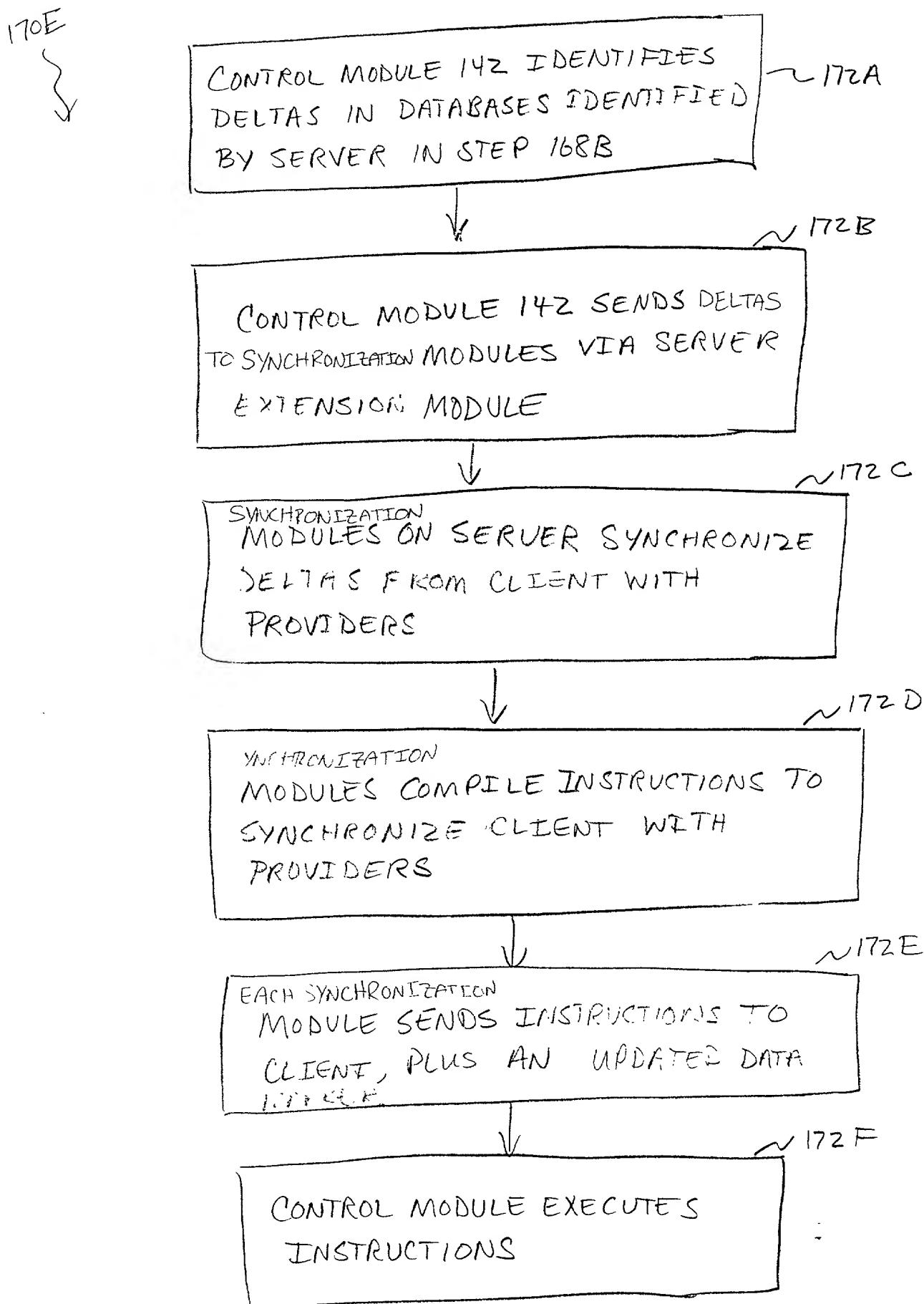


FIG. III

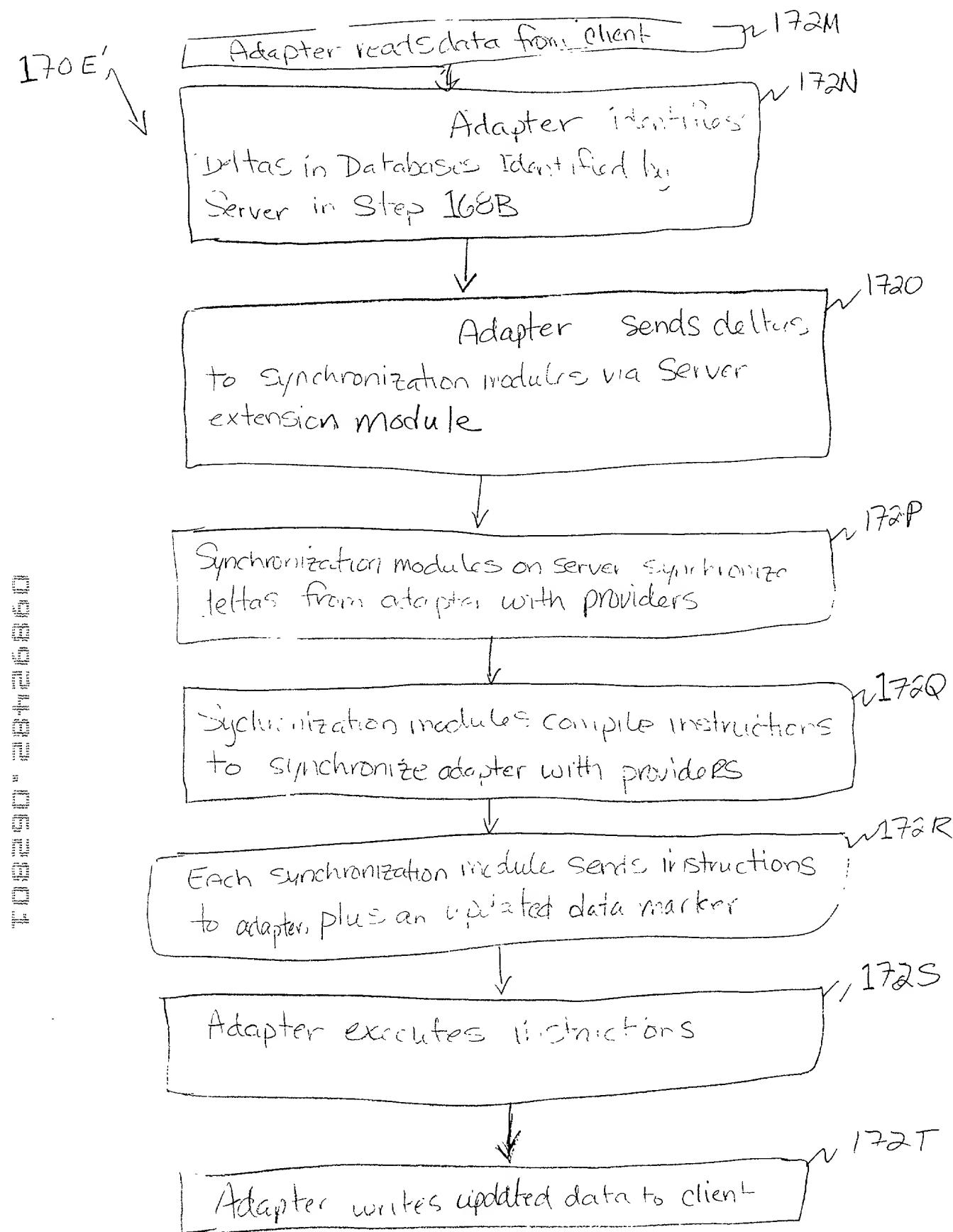


FIG. 112

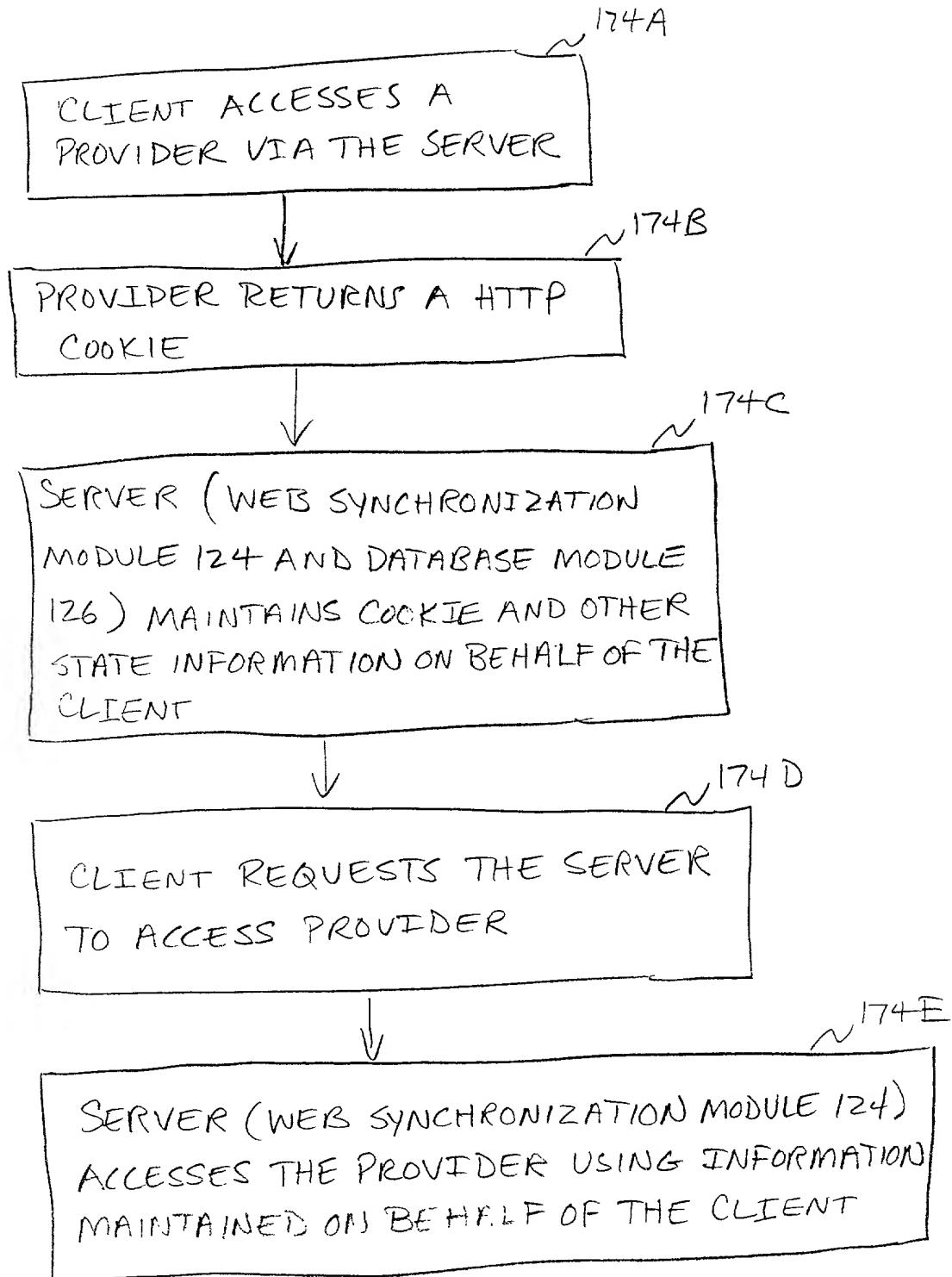


FIG. 1 J

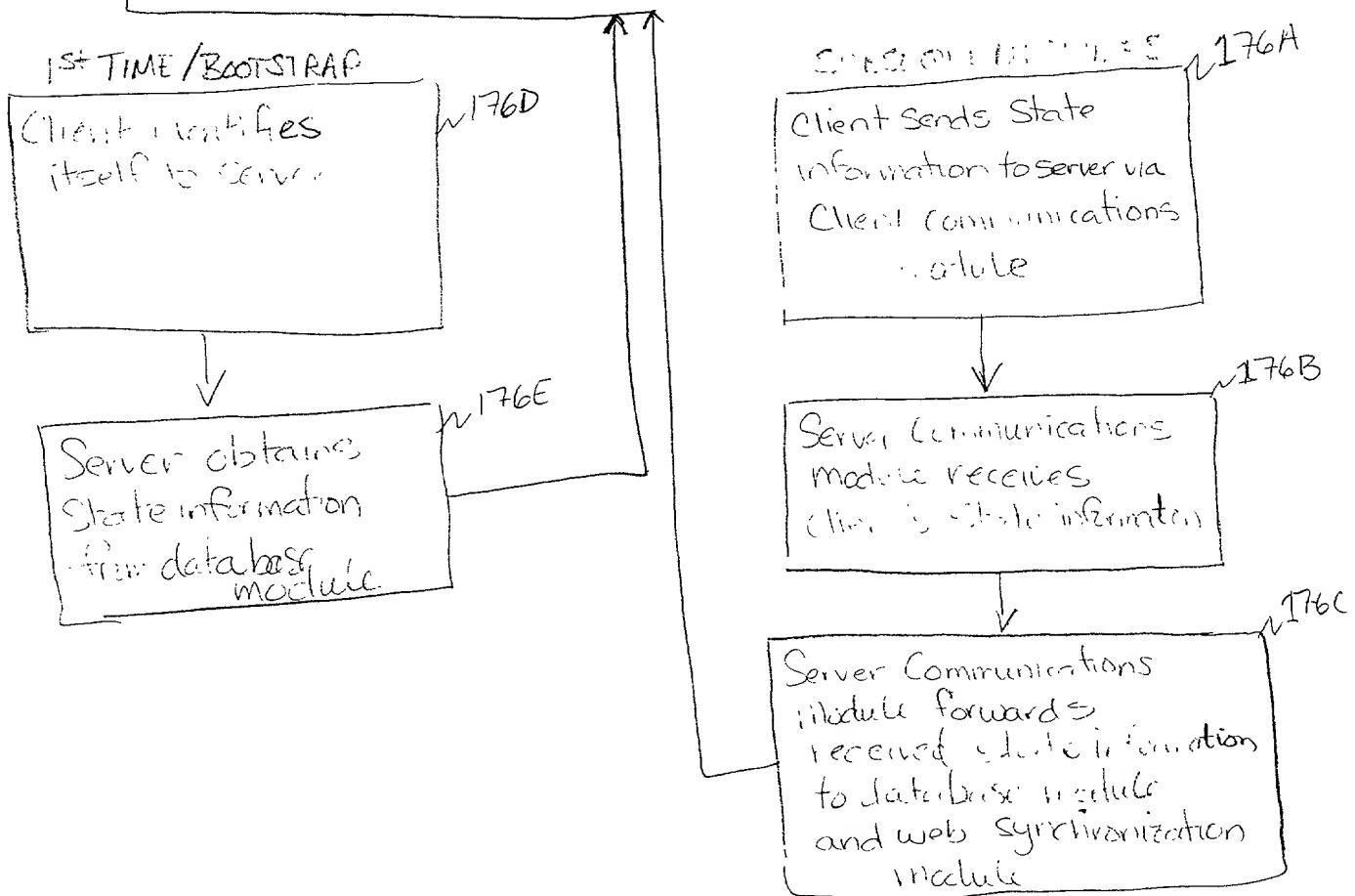
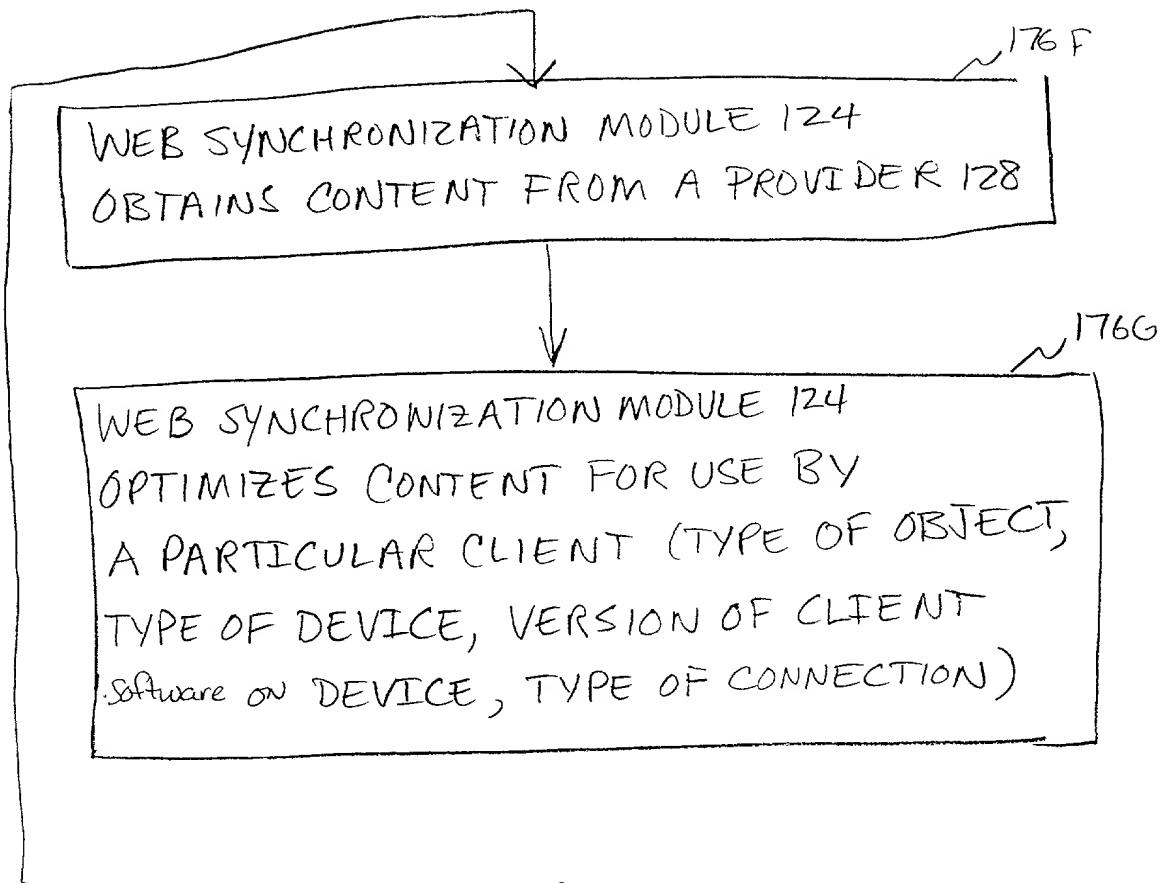
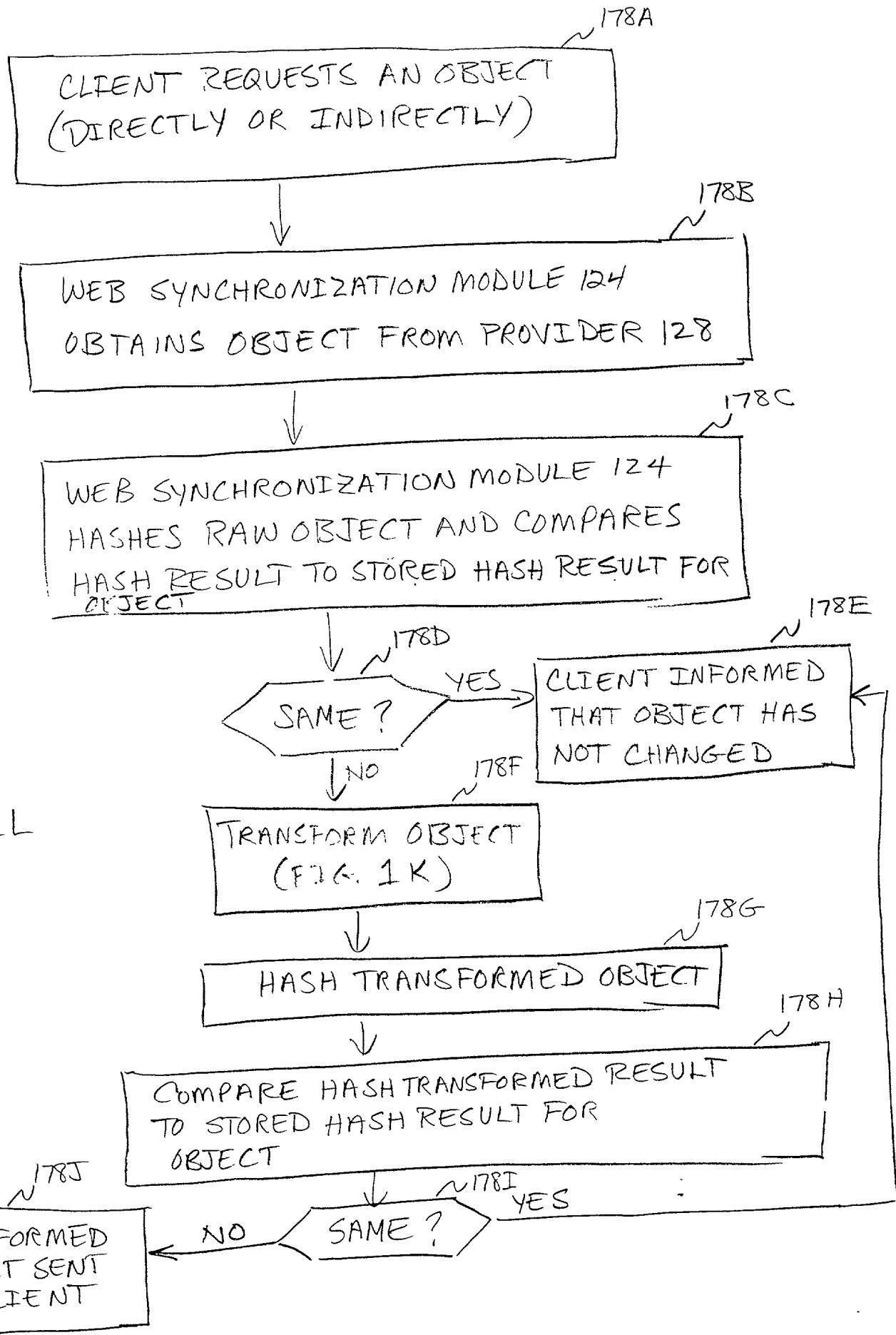
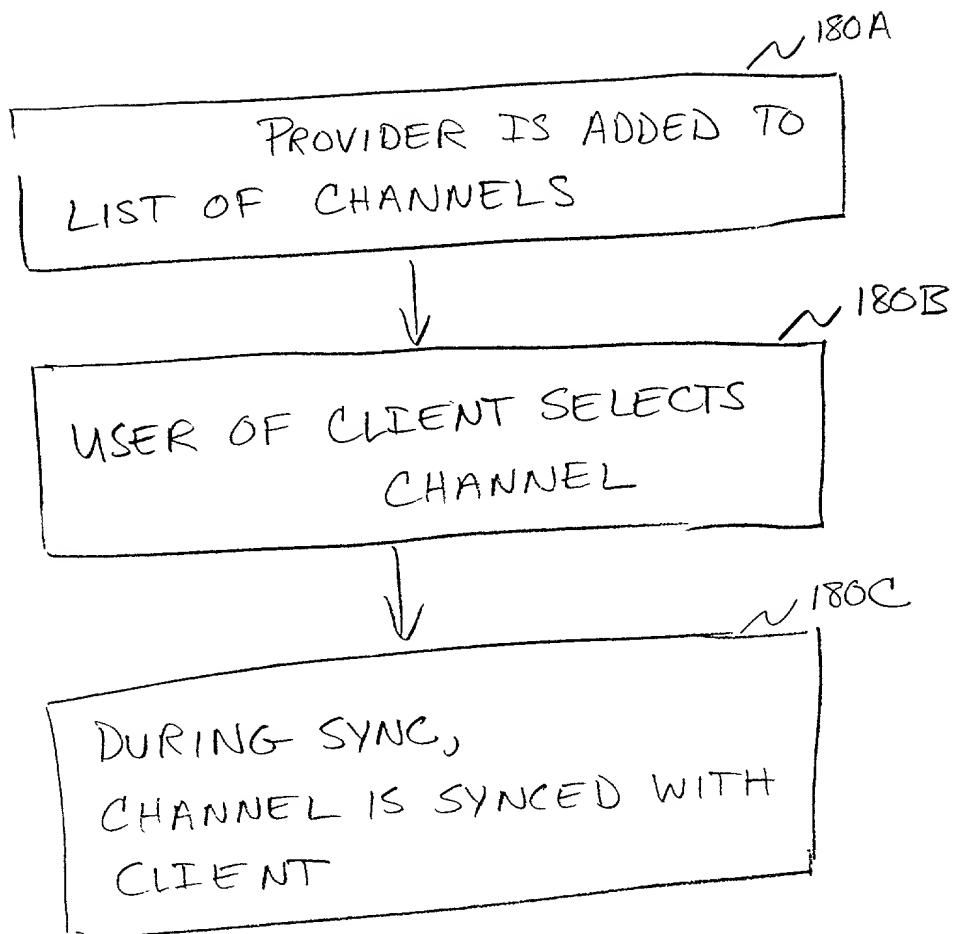


FIG. 1K

FIG. 1L





- MUSIC
- PHOTO ALBUMS
- BOOKS
- MOVIES
- ETC.

FIG. 1M

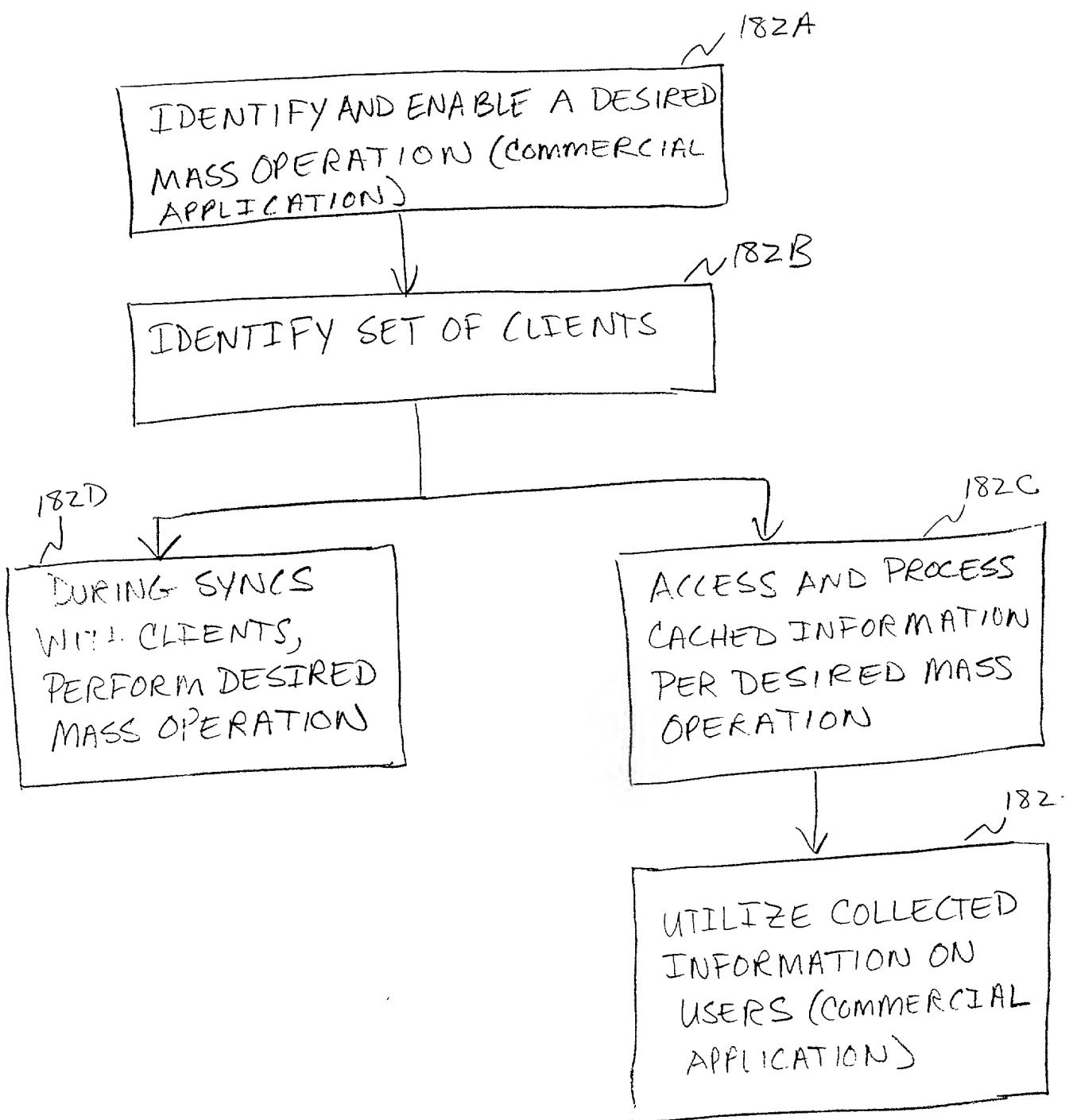


FIG. 1N

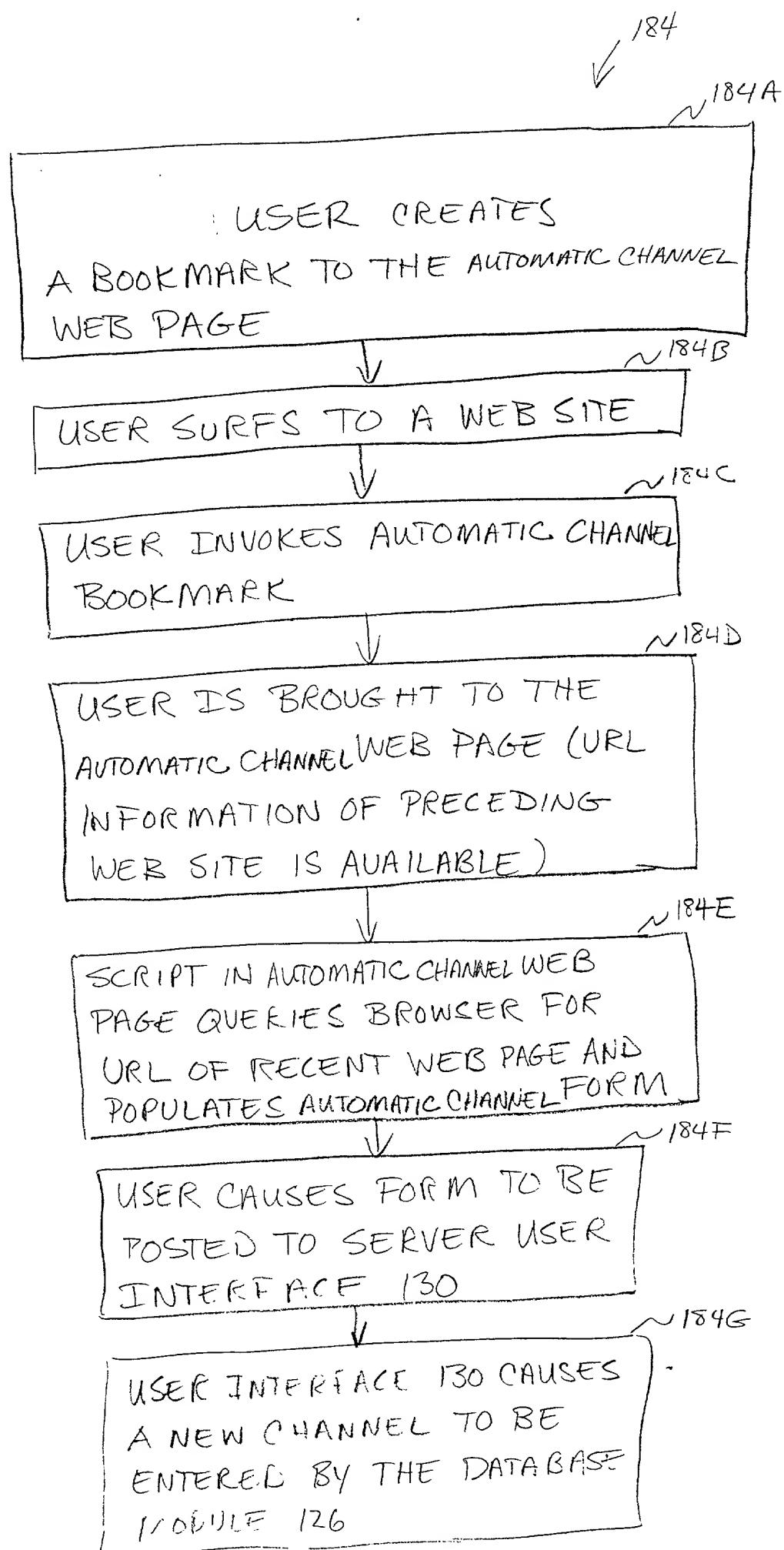


FIG. 10

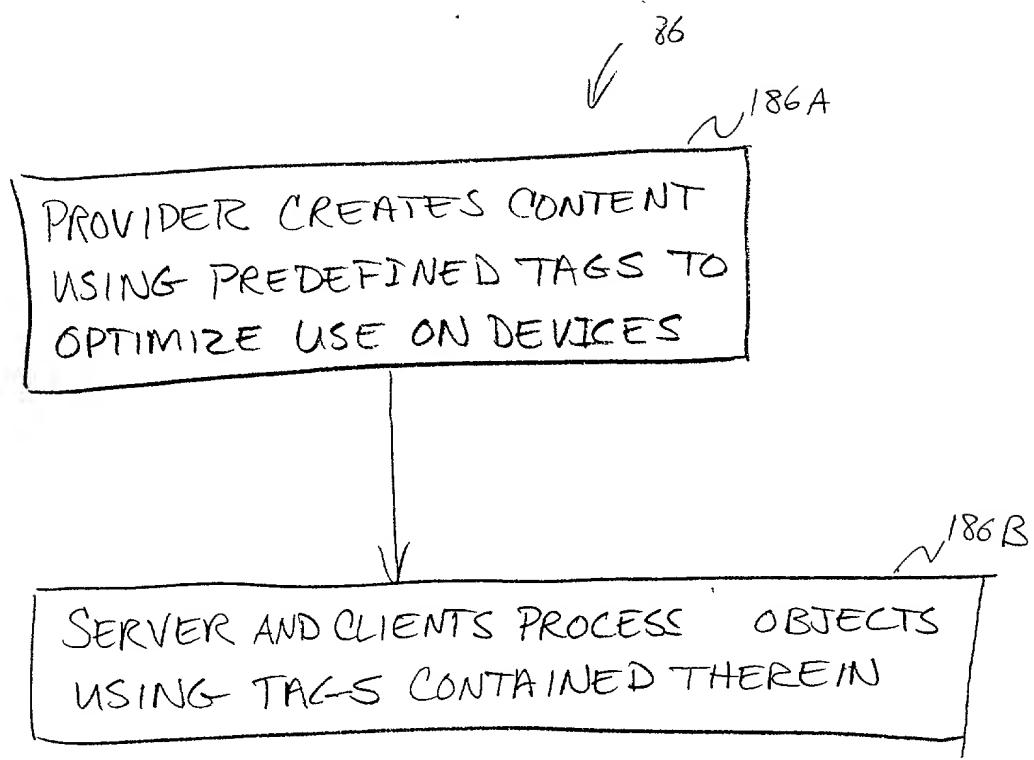


FIG. 1P

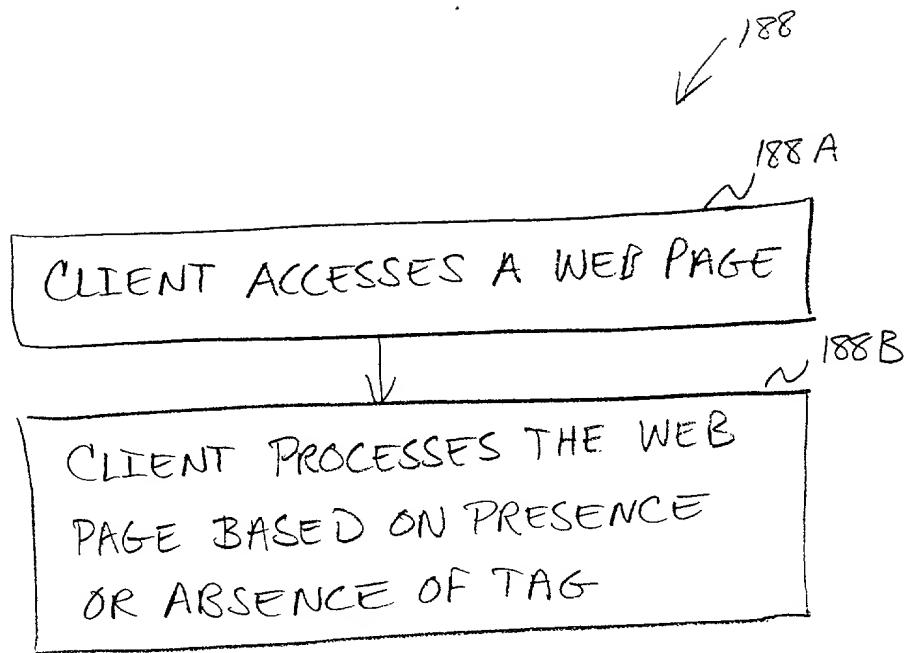


FIG. 1Q

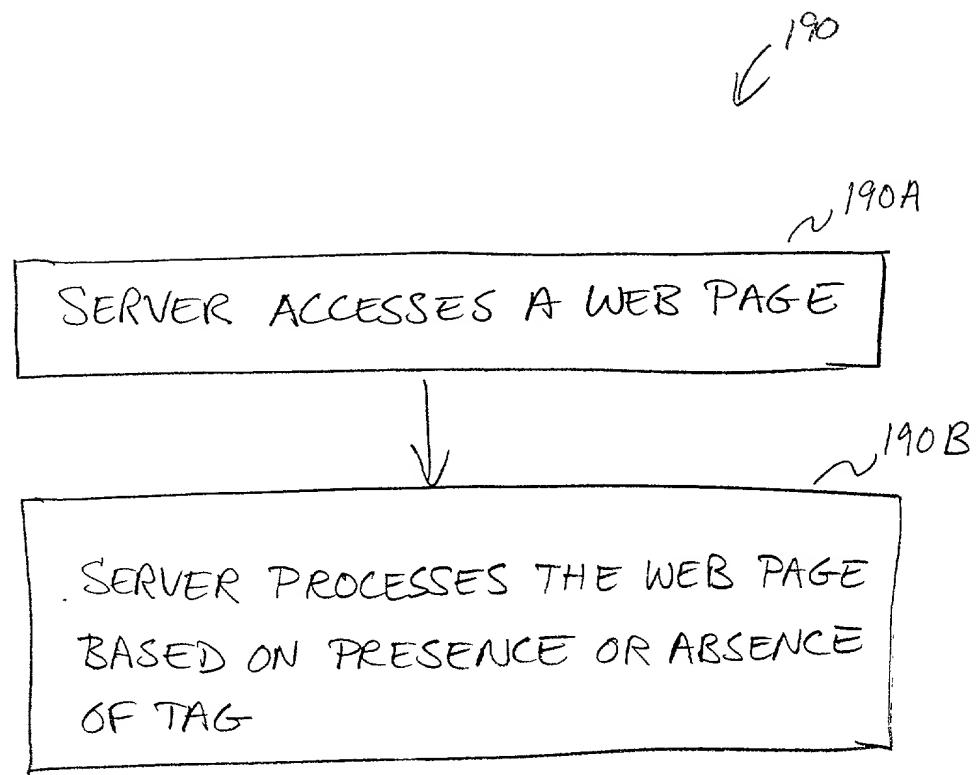


FIG. 1R

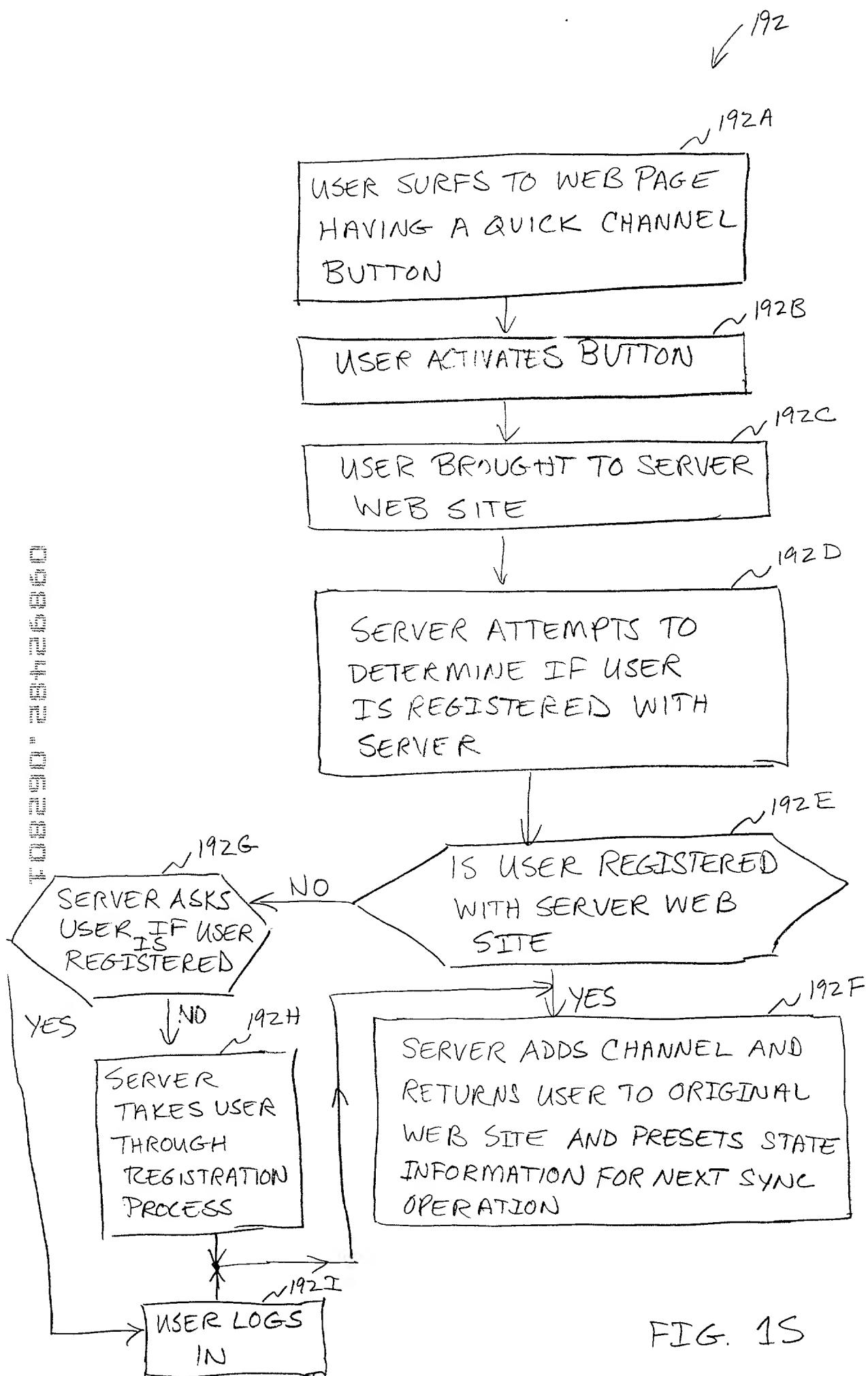


FIG. 15

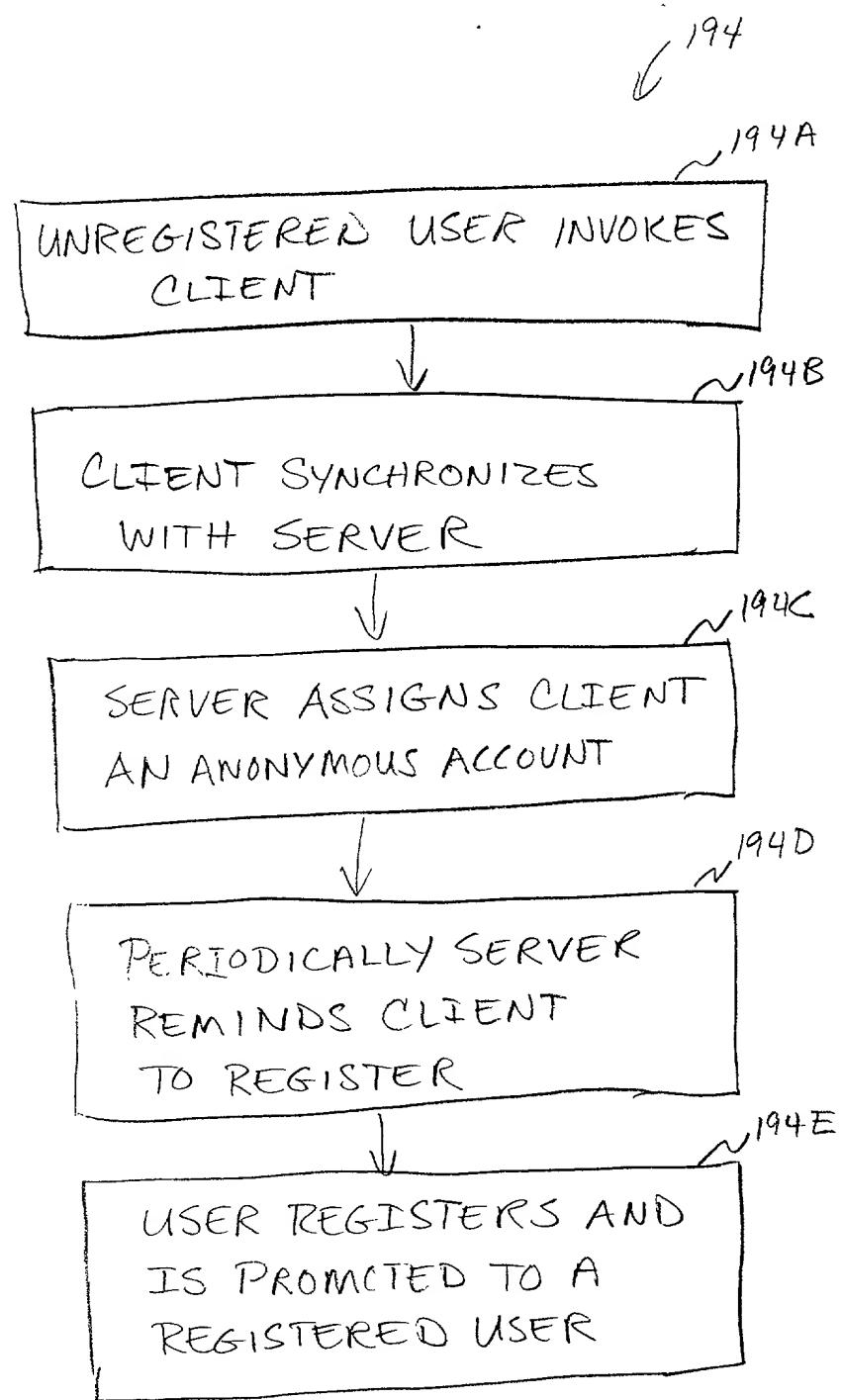


FIG. 1T

Core Technology : Placing Internet/
Intranet Content on Mobile Devices

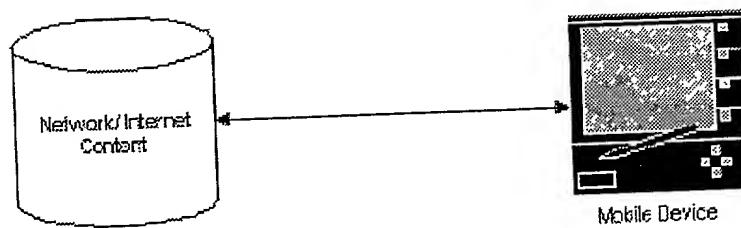


FIG. 1u

Mobile Device/Server Environment

Mobile Devices in a Client Server Environment

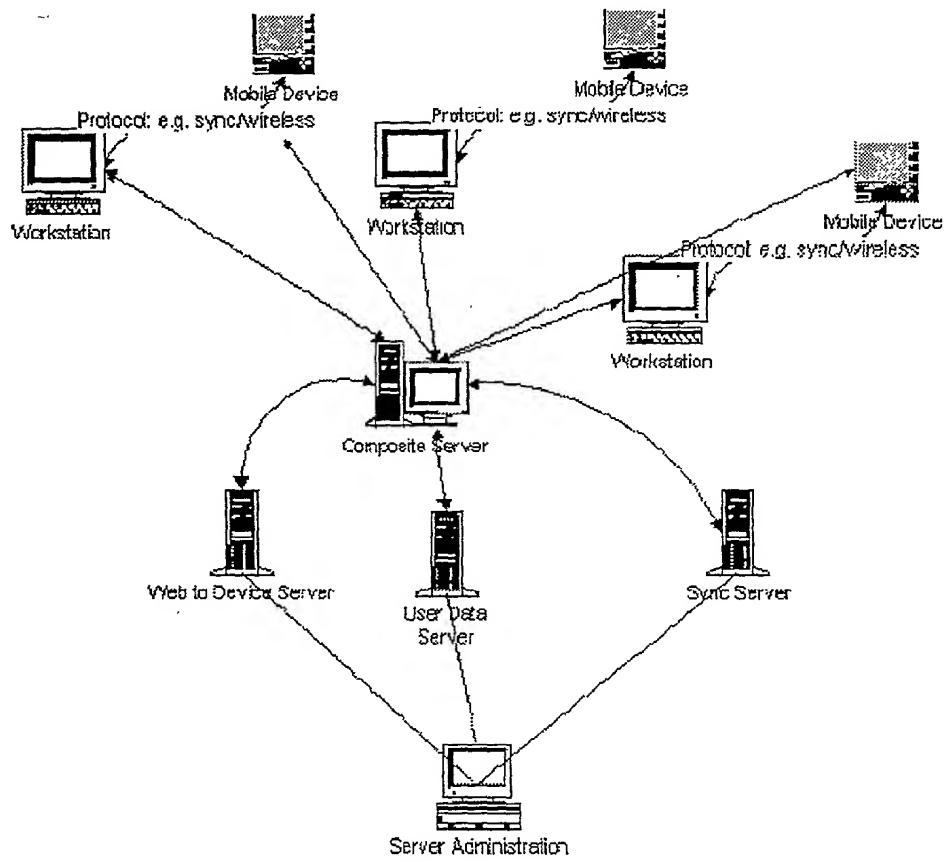


FIG. 1V

Downstream Protocol

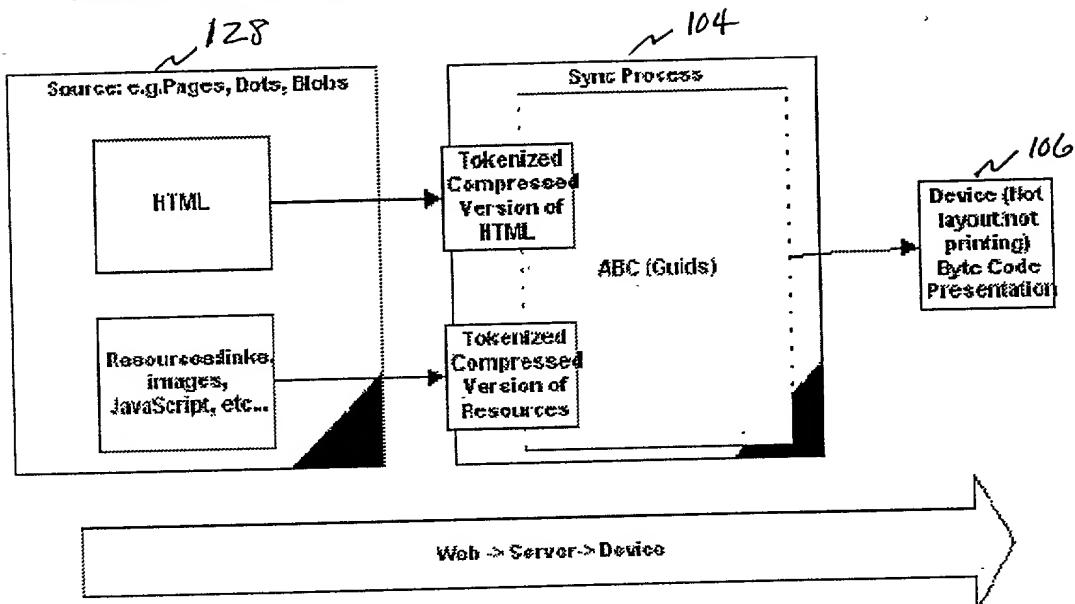


Fig. 1w

One Up/One Down Sync

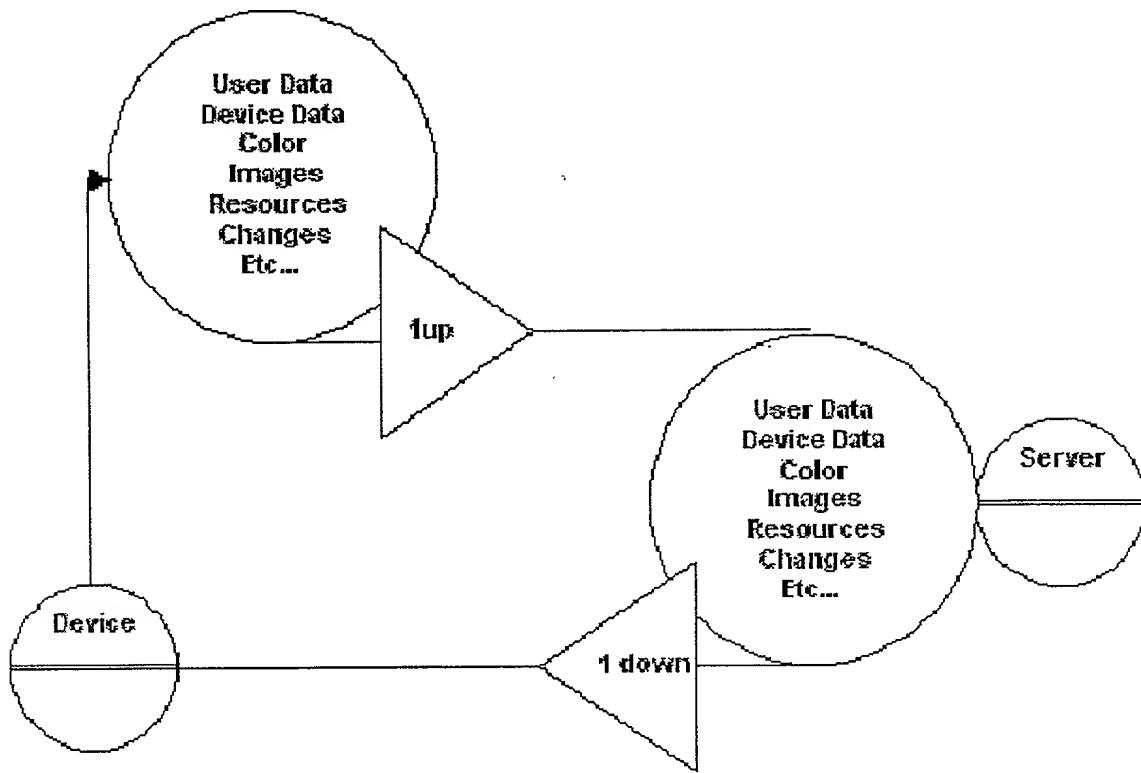


Fig. 1X

Sync Process

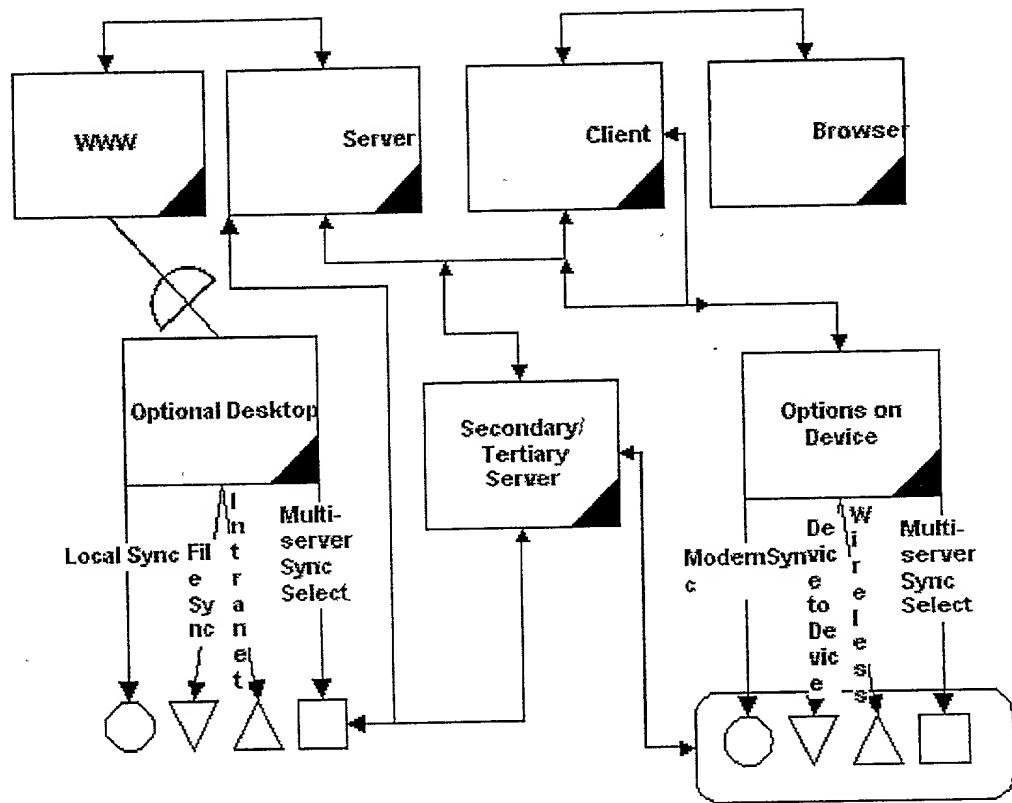


FIG. 14

Granular Variable Protocol

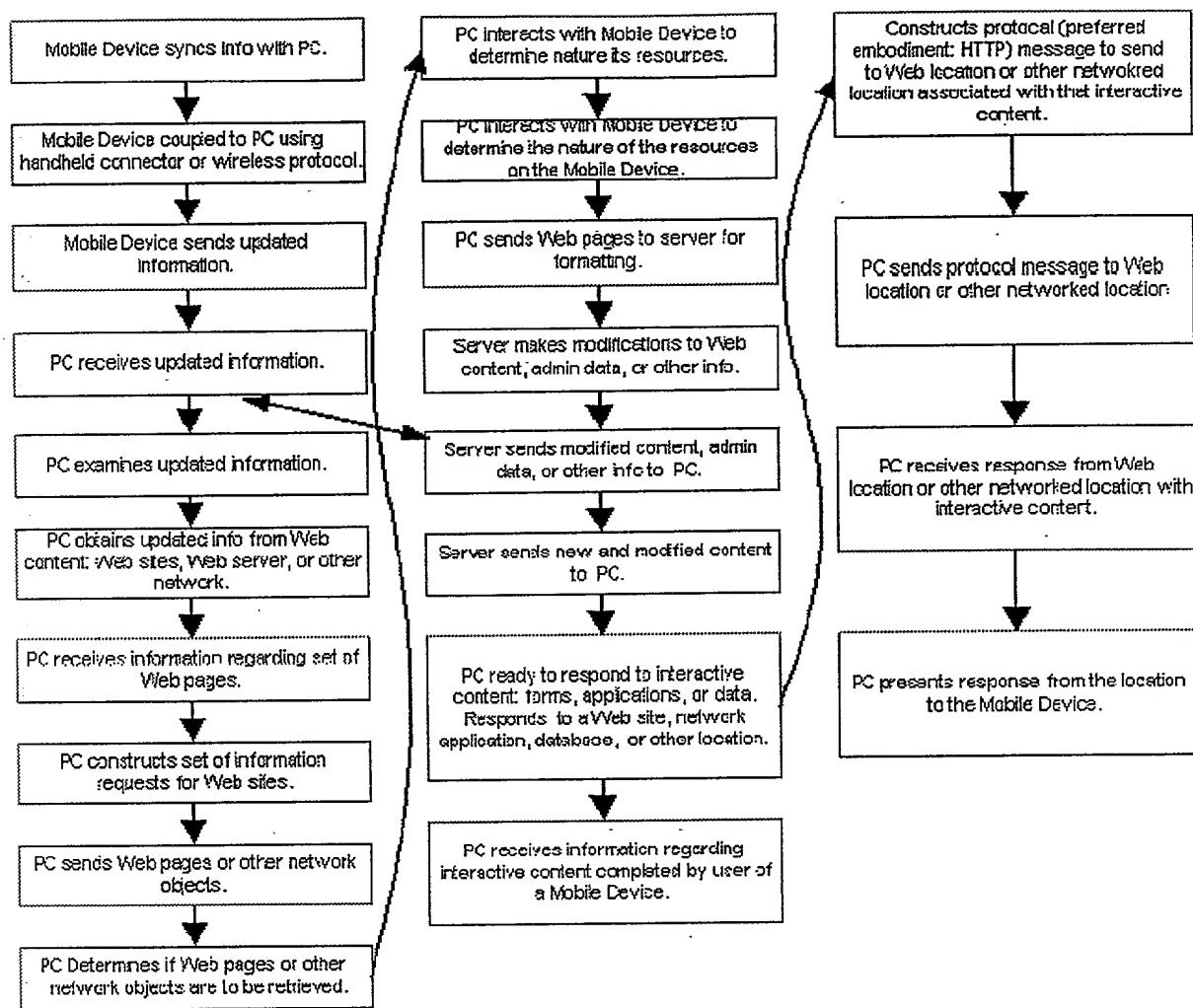


FIG. 17

Optimization: An Example

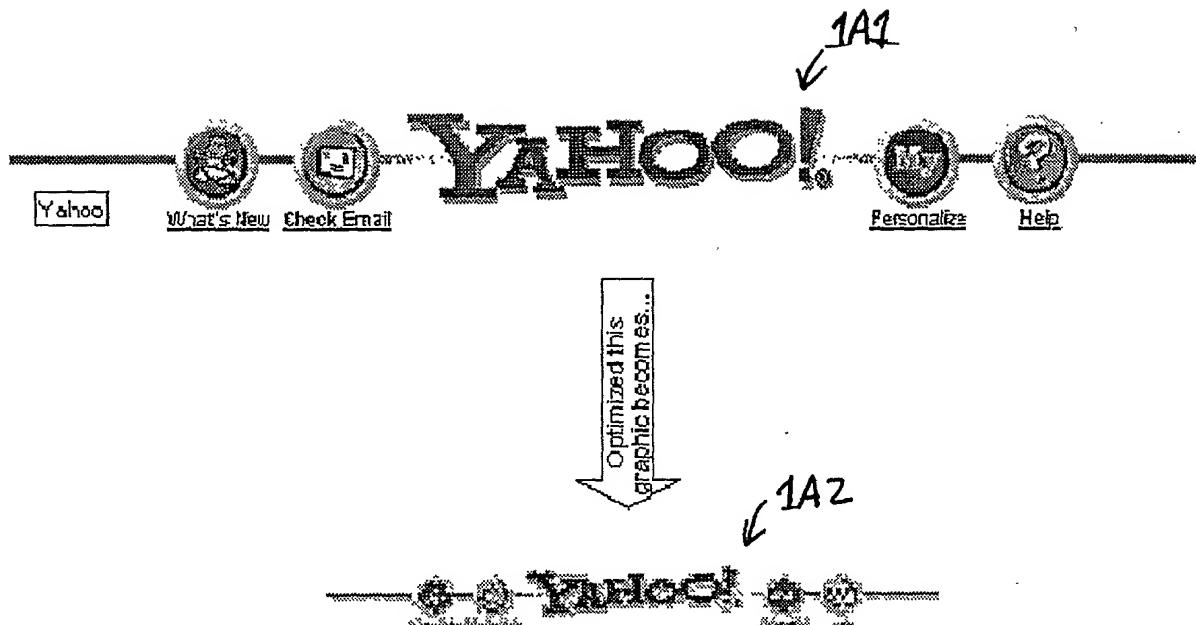


FIG. 1AA

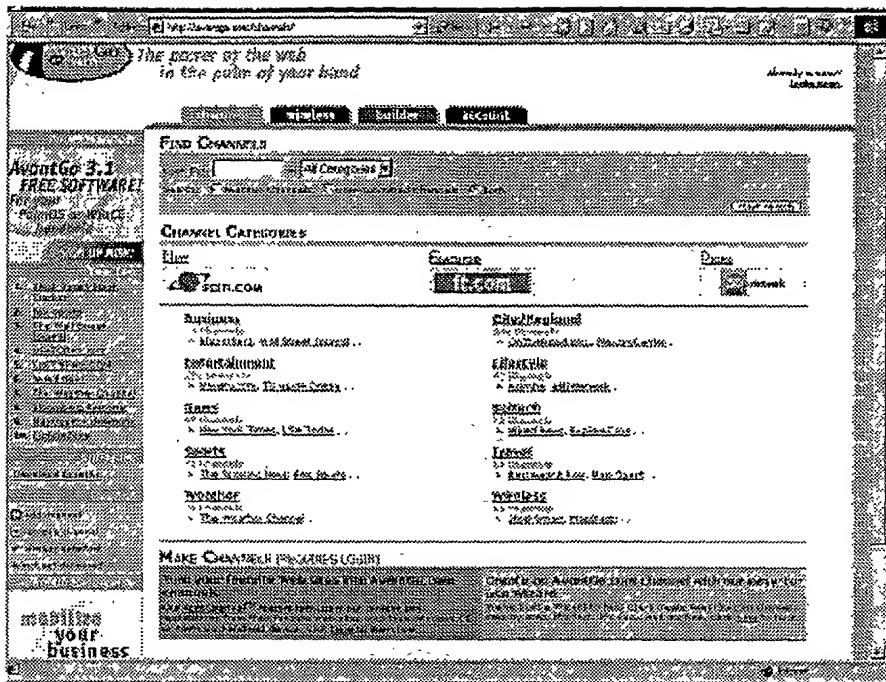
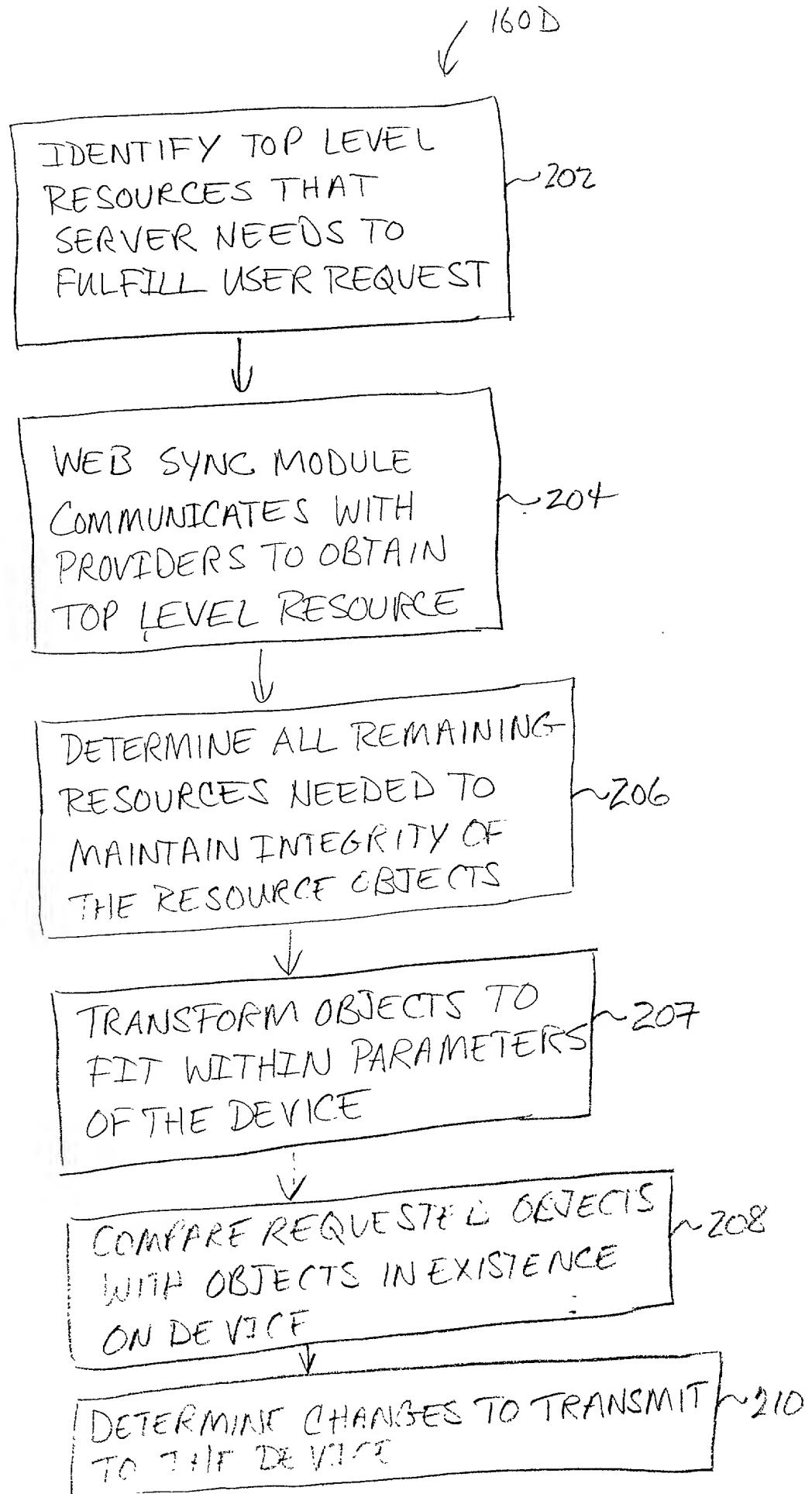


FIG 6. LAB

FIG. 2



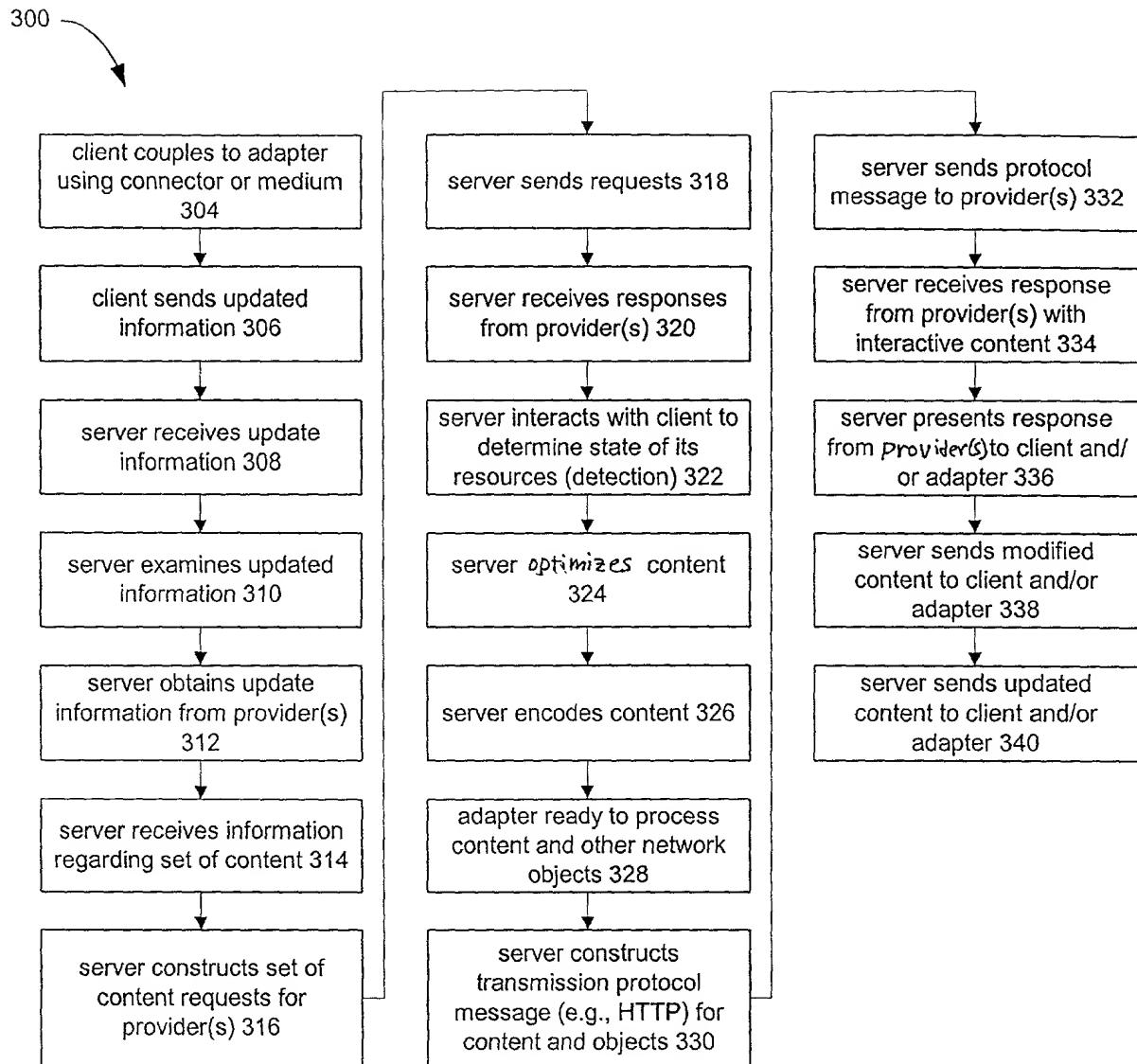


FIG. 3A

Serving XML to Device

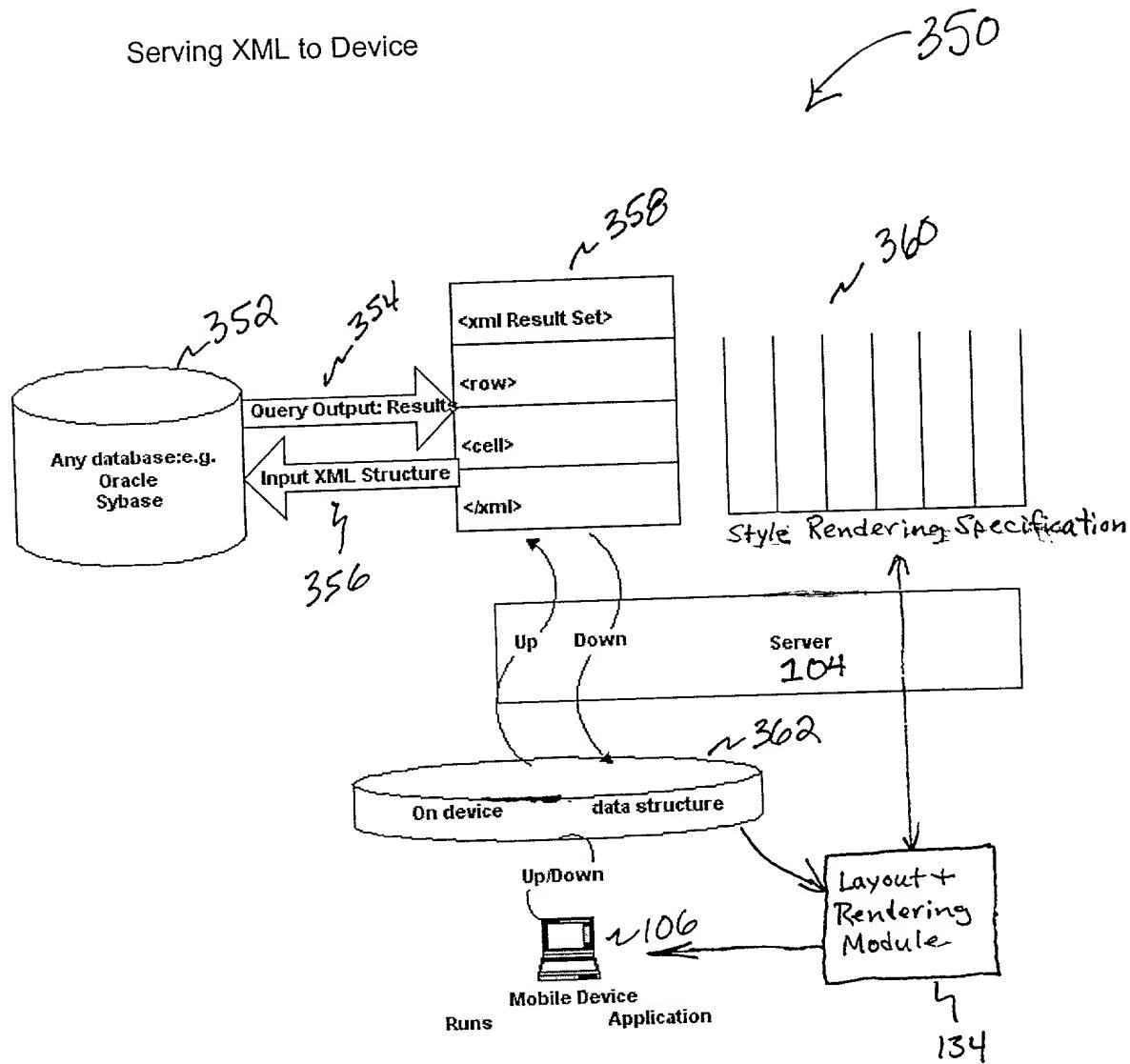


FIG. 3B

375

Off-by-any number Sync Recovery

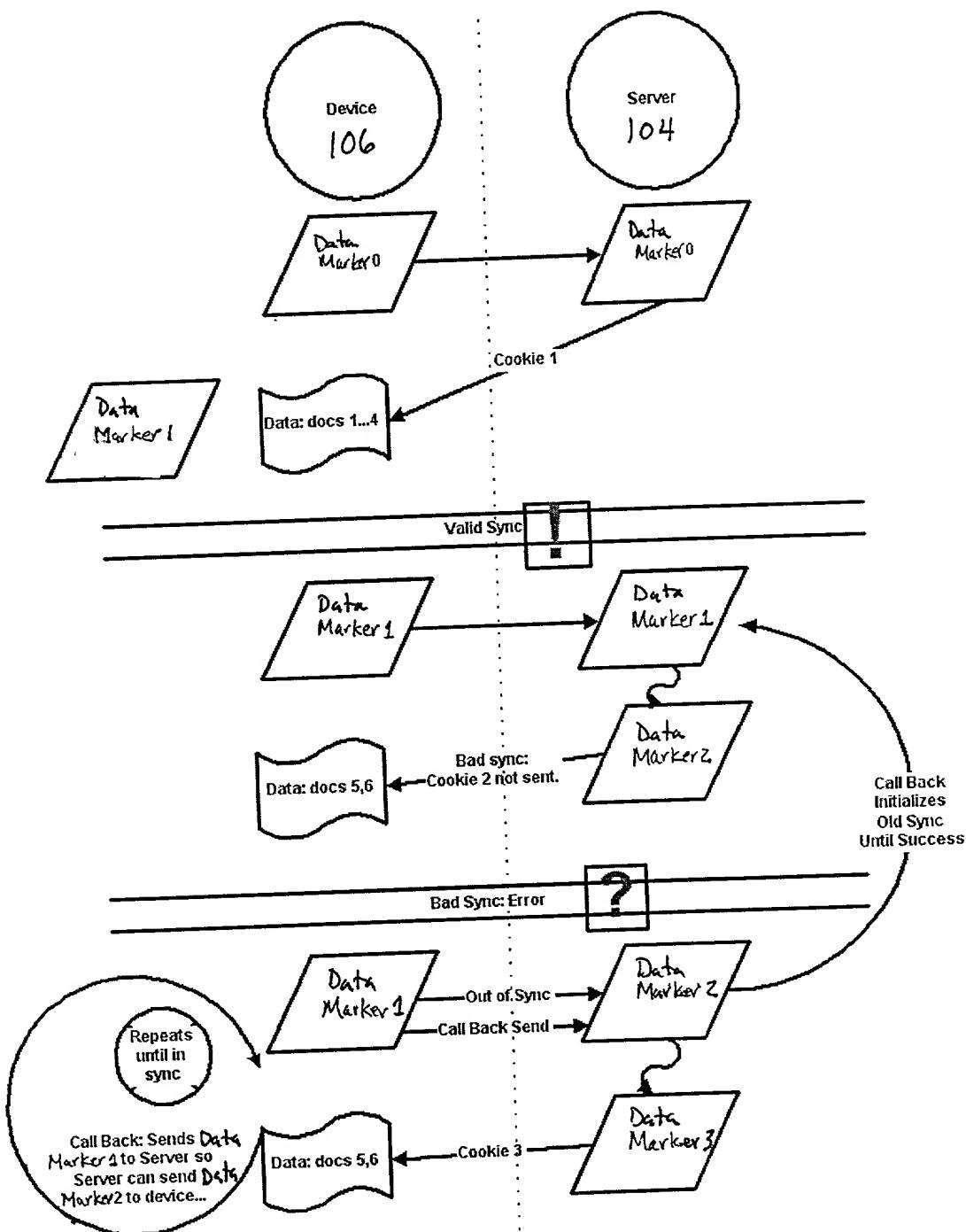


FIG. 3C

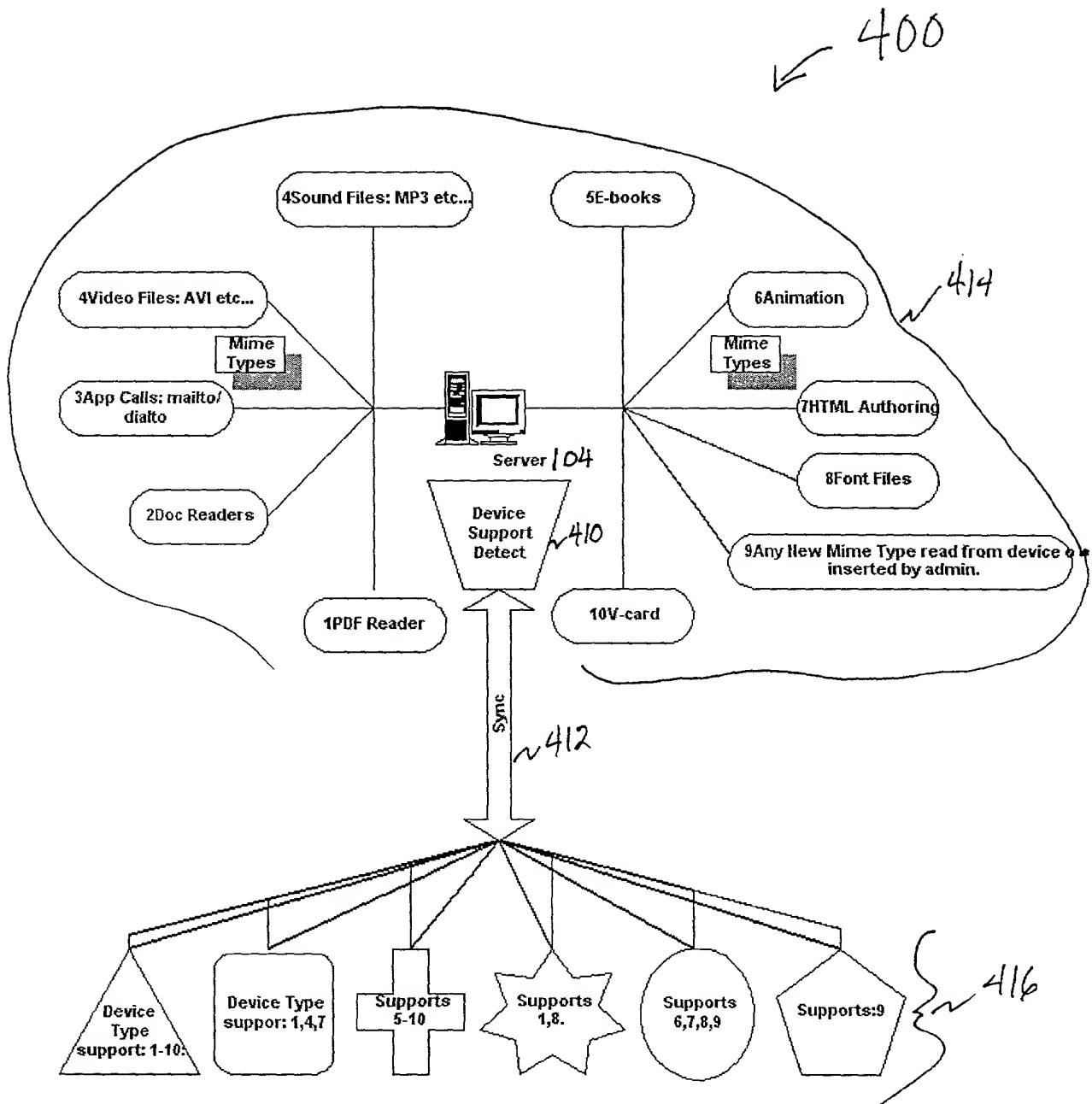


FIG. 4A

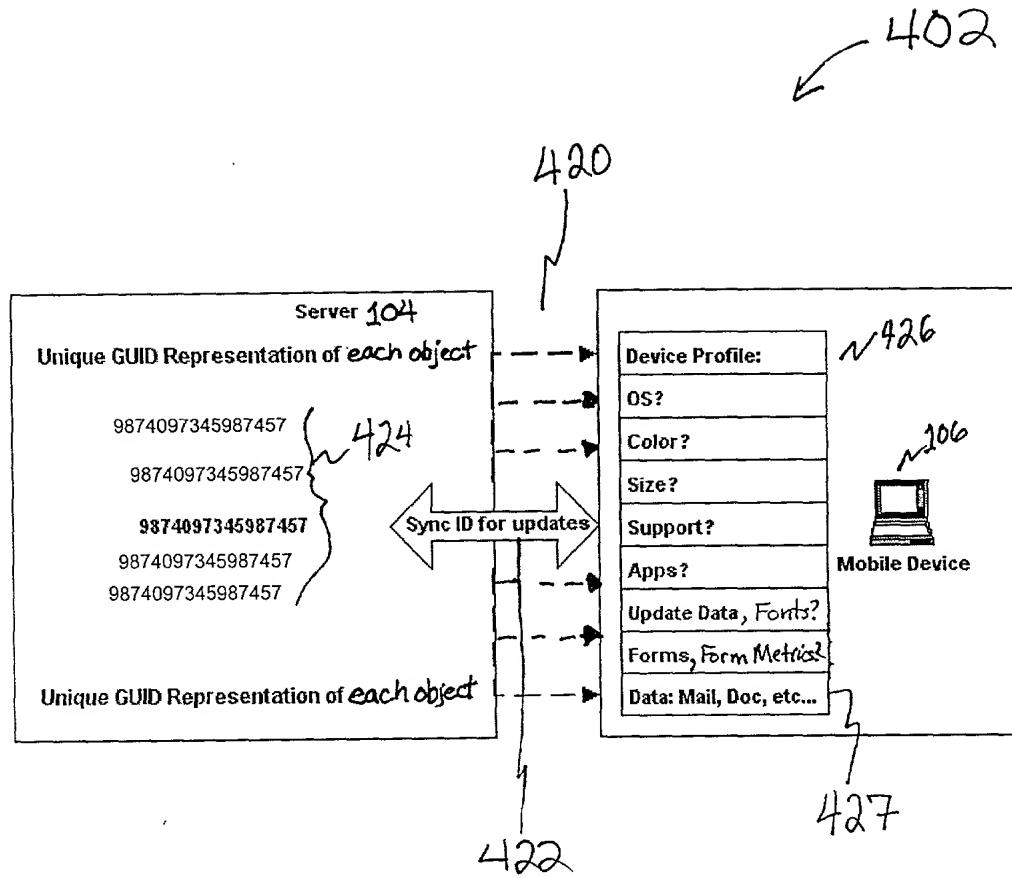
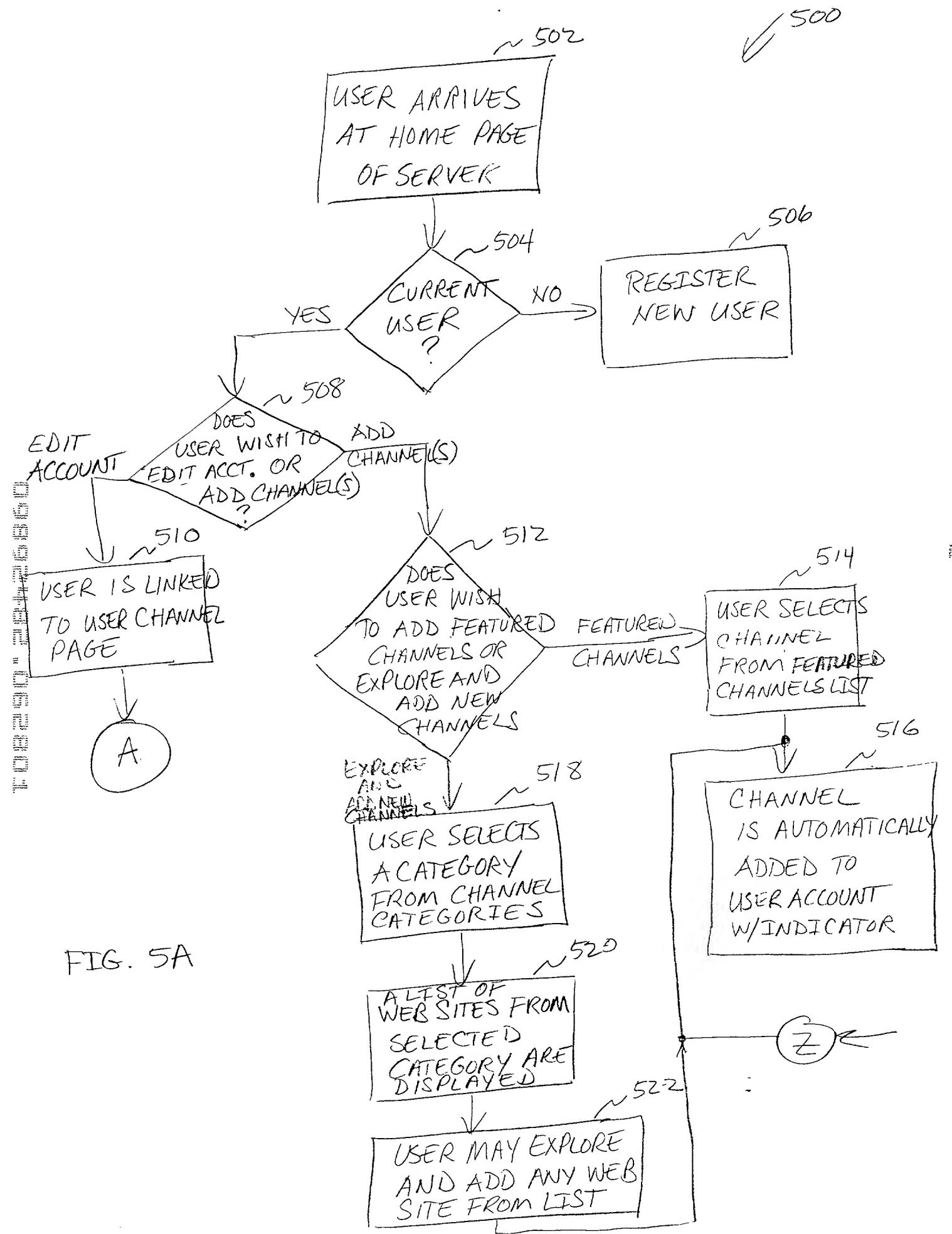


FIG. 4B



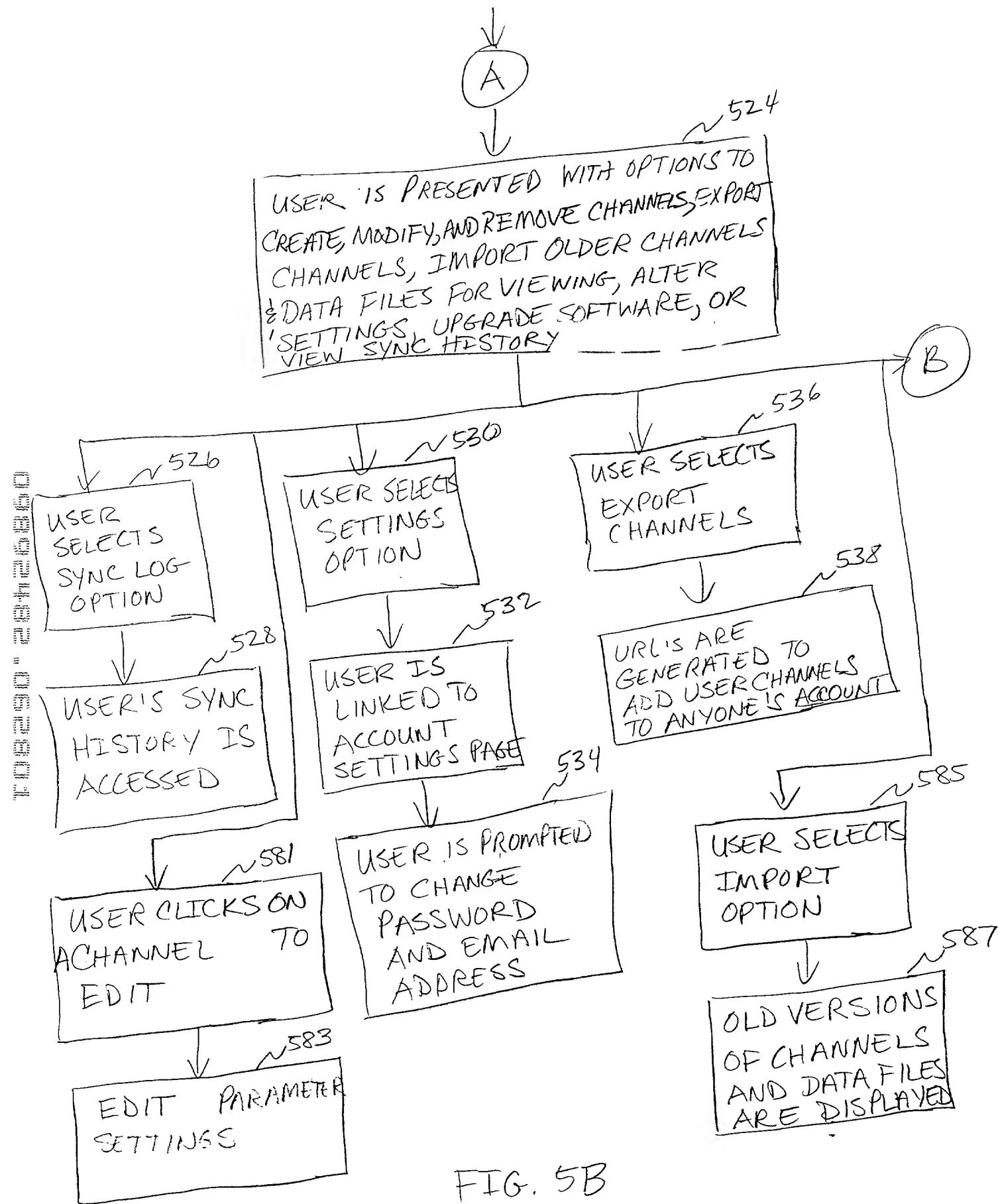


FIG. 5B

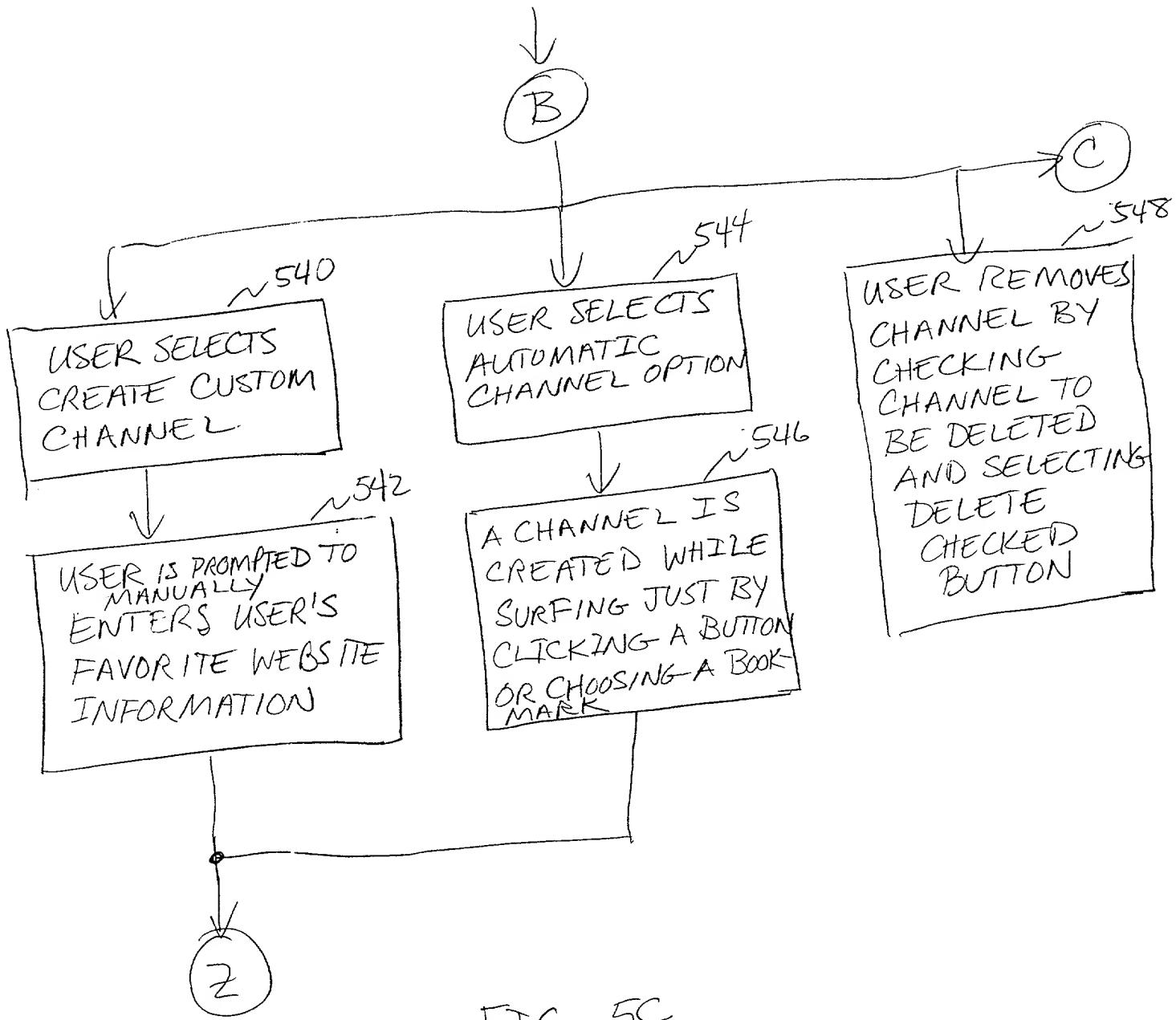
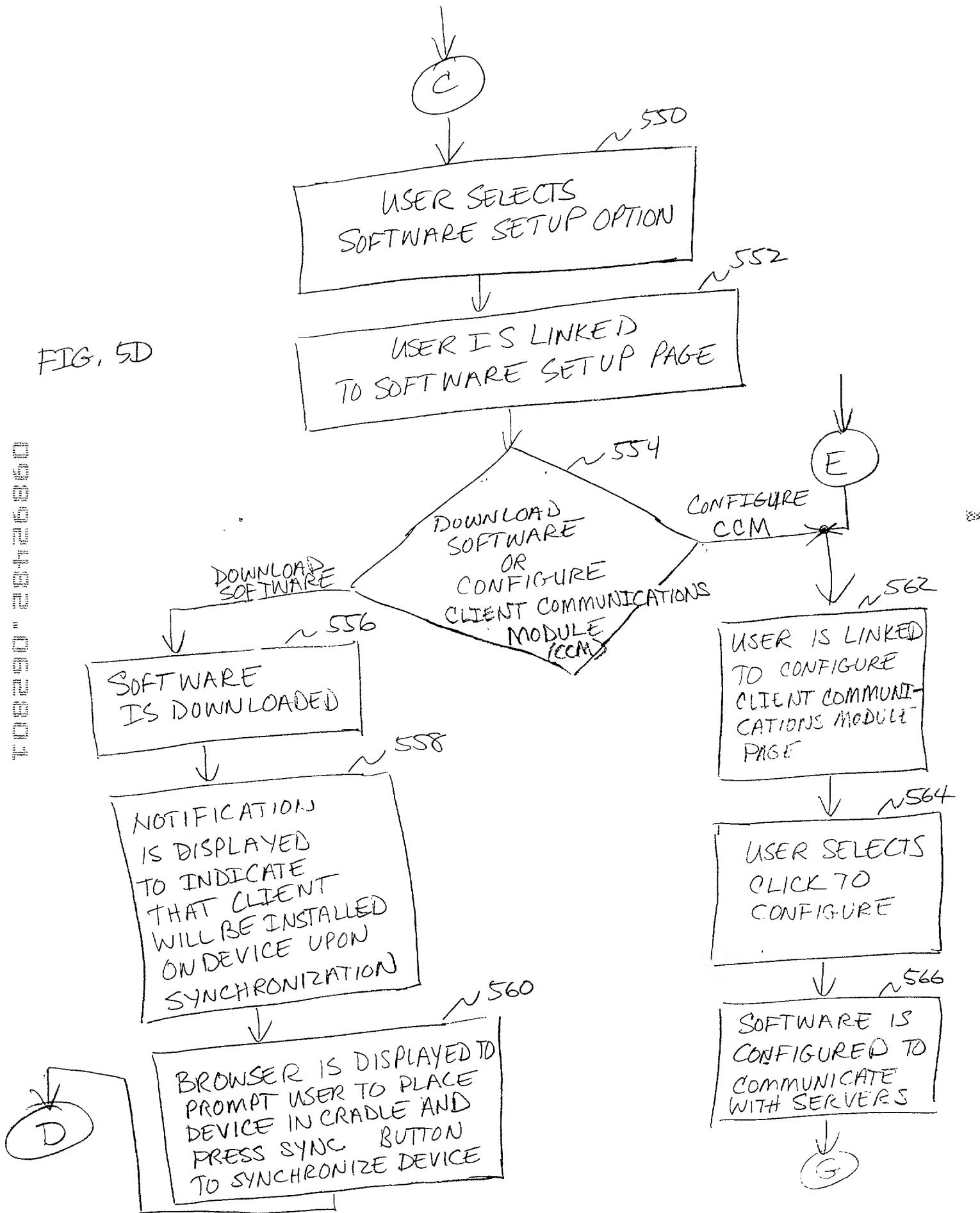


FIG. 5C

FIG. 5D



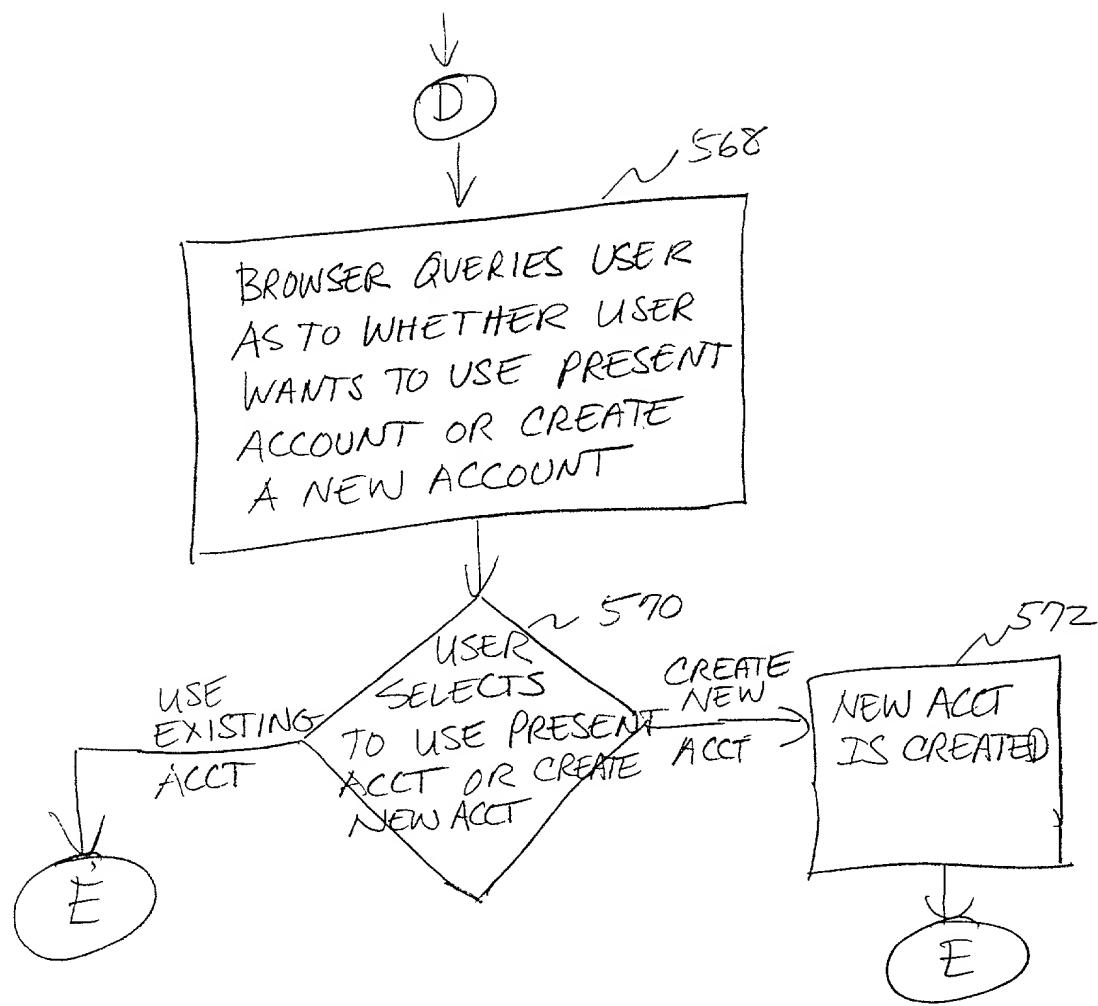
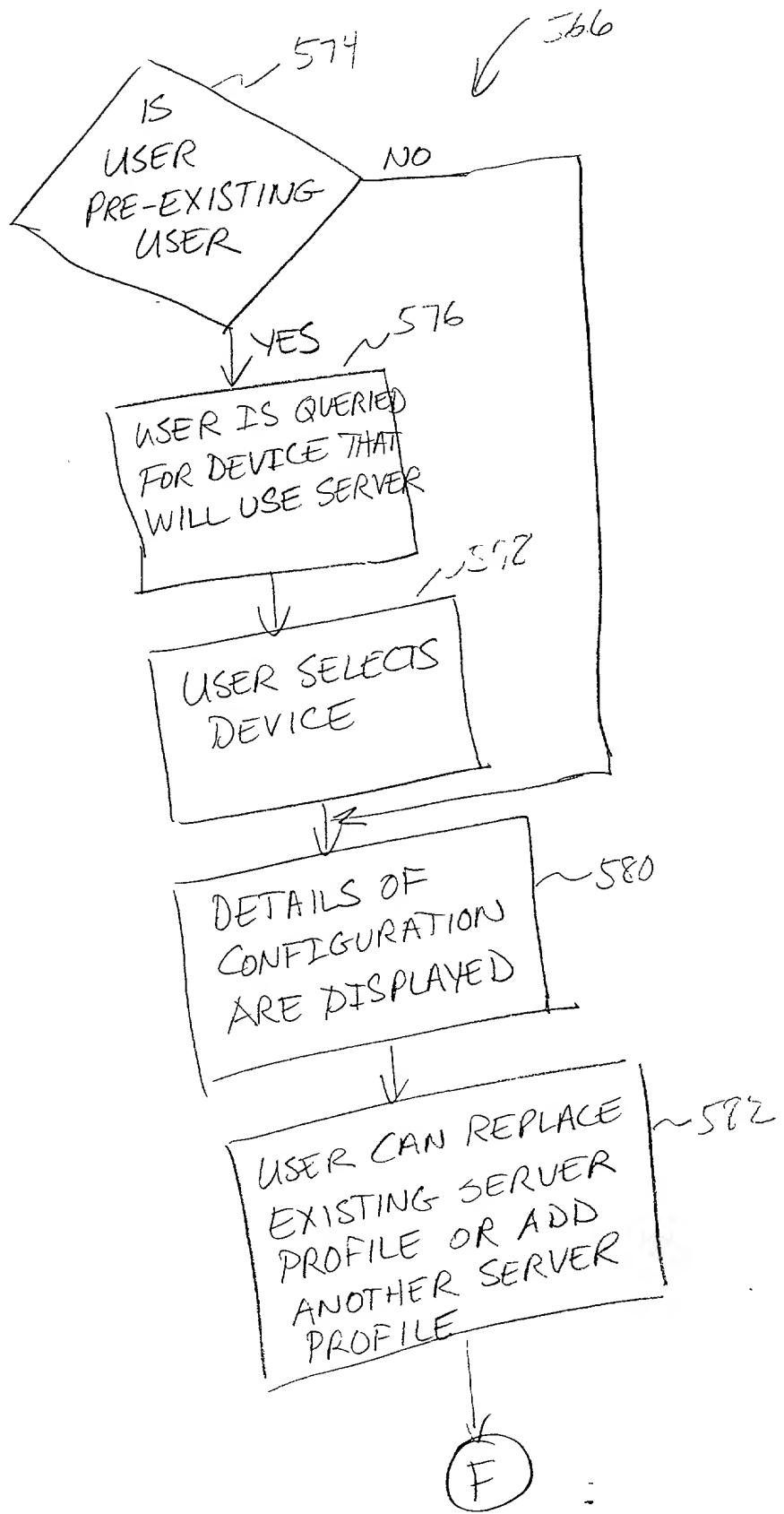
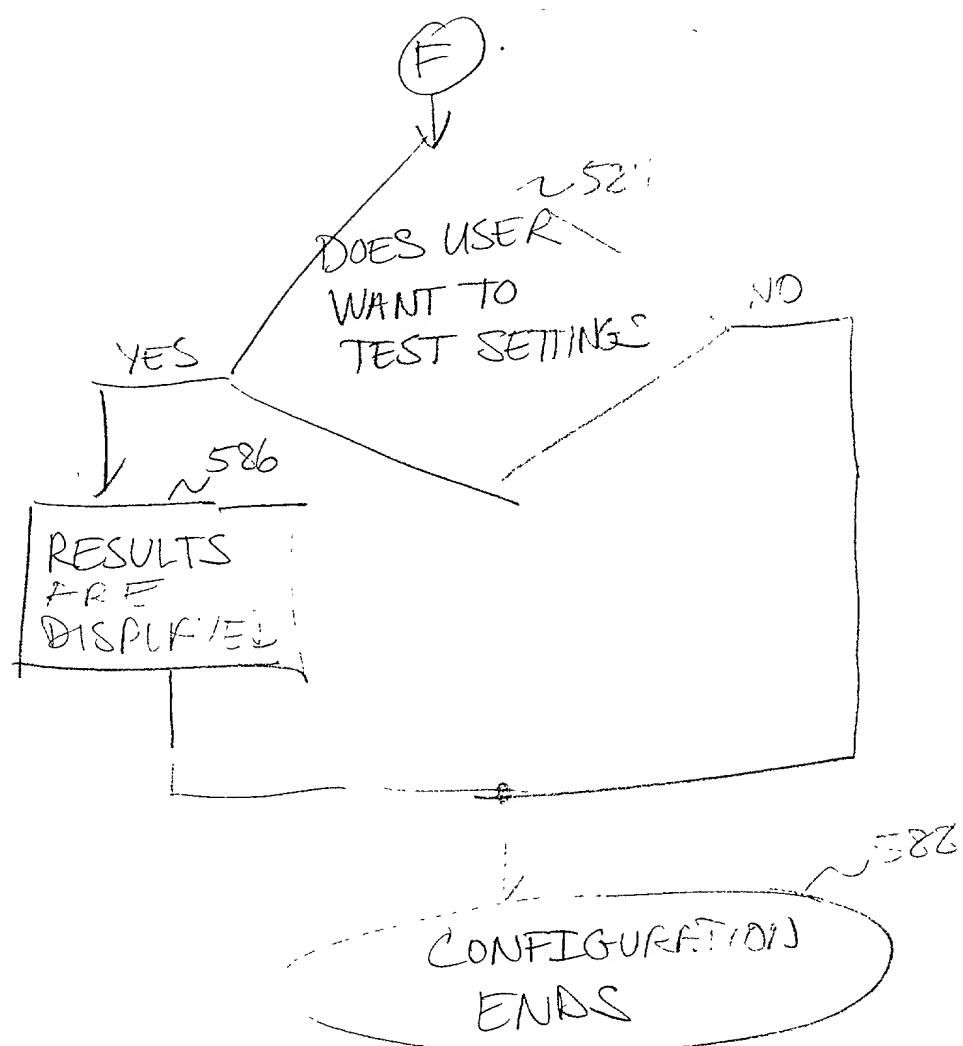


FIG. 5E

FIG. 5F





CONFIGURATION
ENDS

FIG 3.5

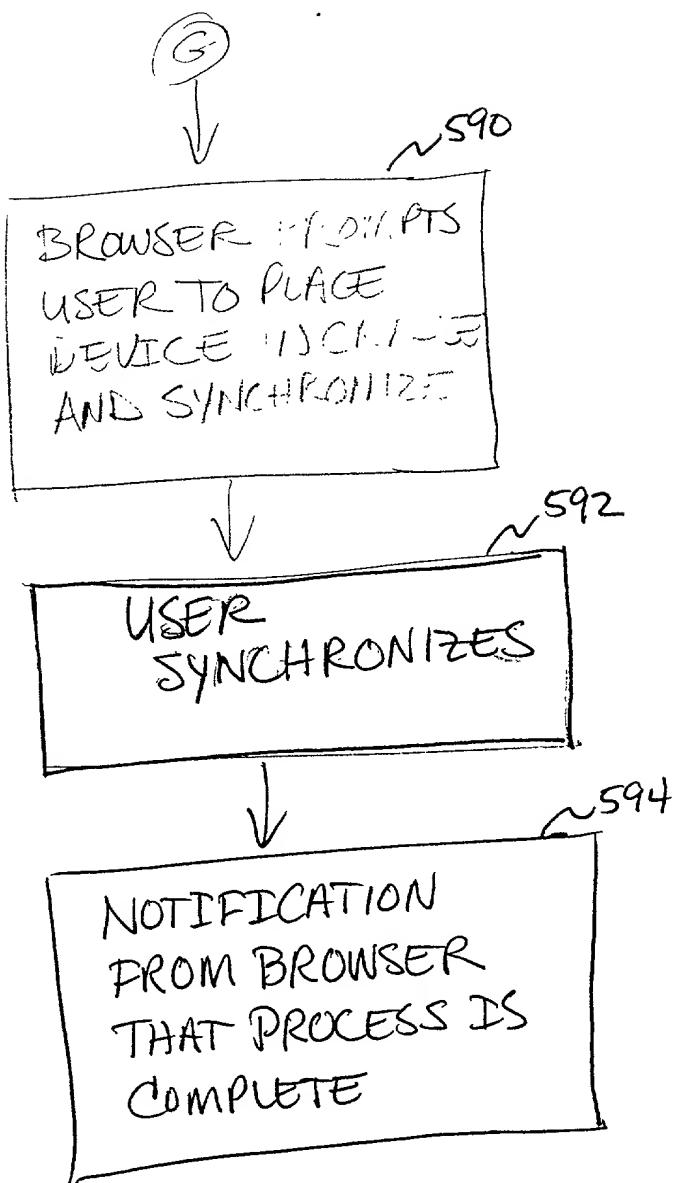
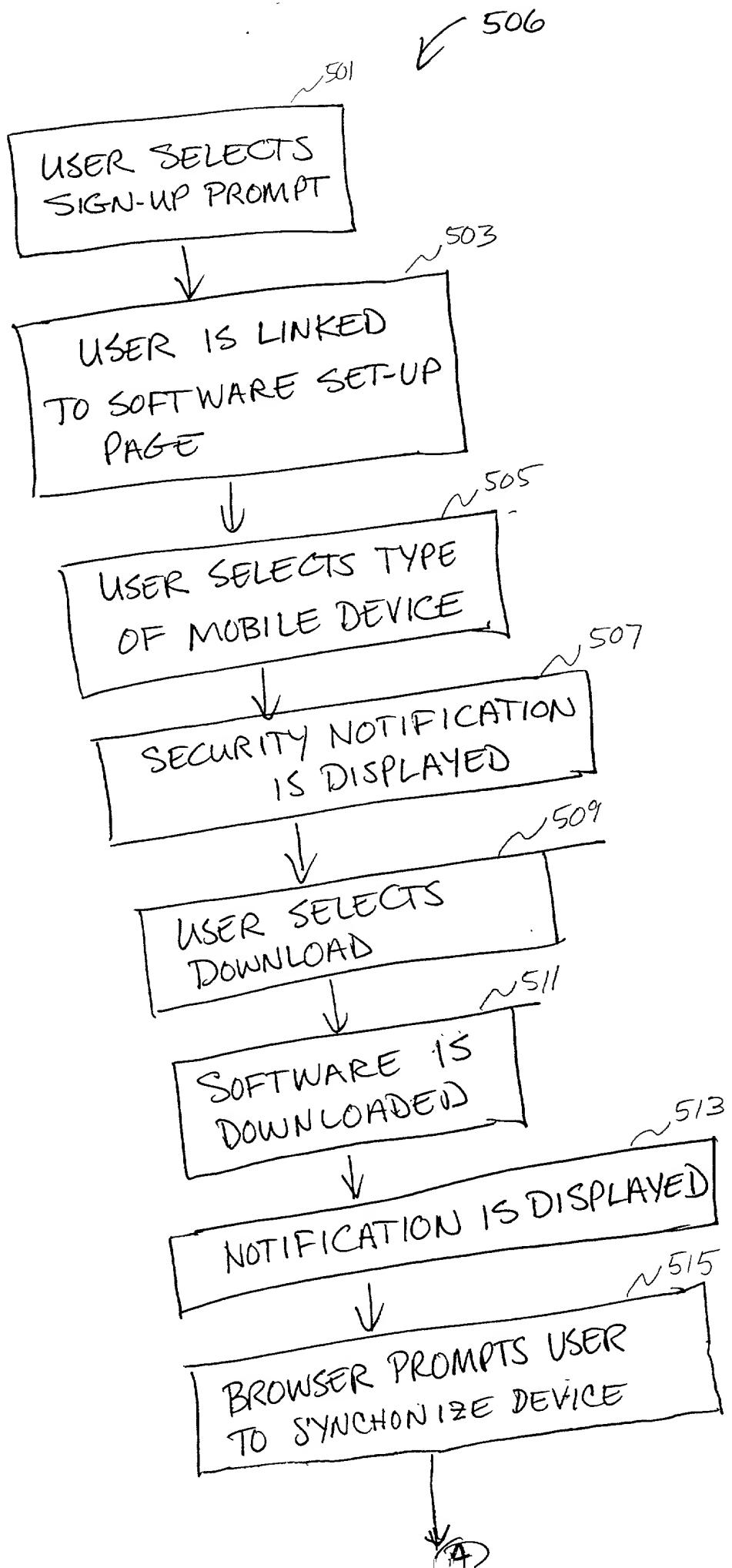


FIG. 5H

FIG. 5I



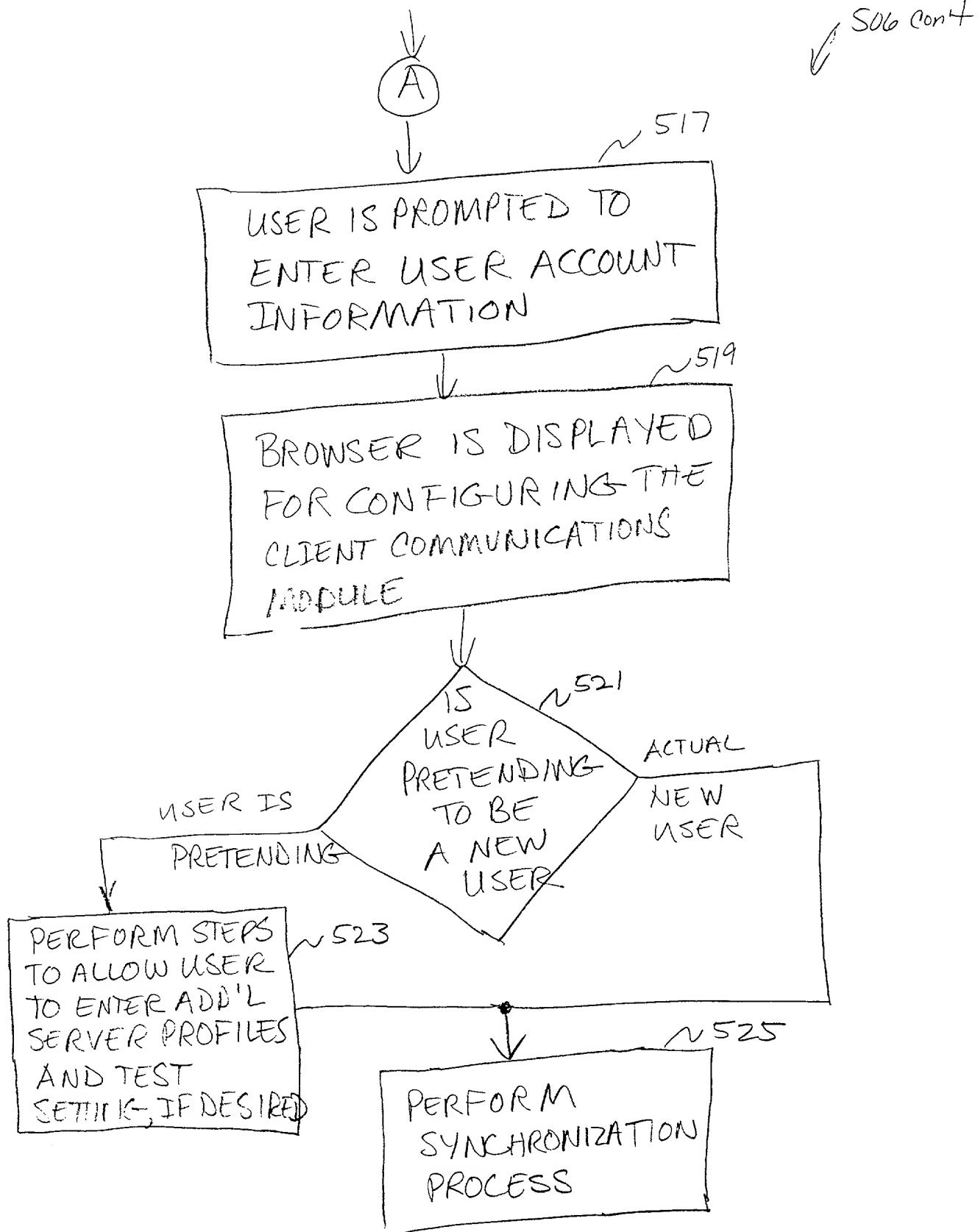


FIG. 5J

531

533

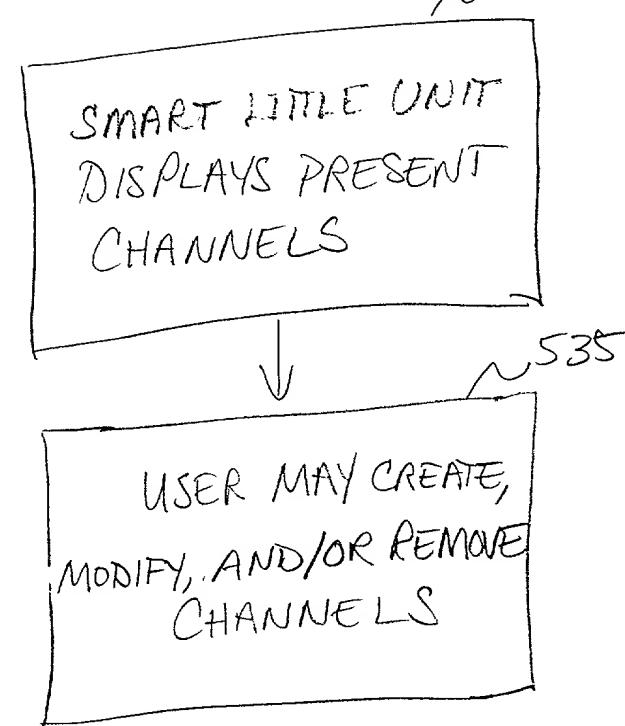


FIG. 5K

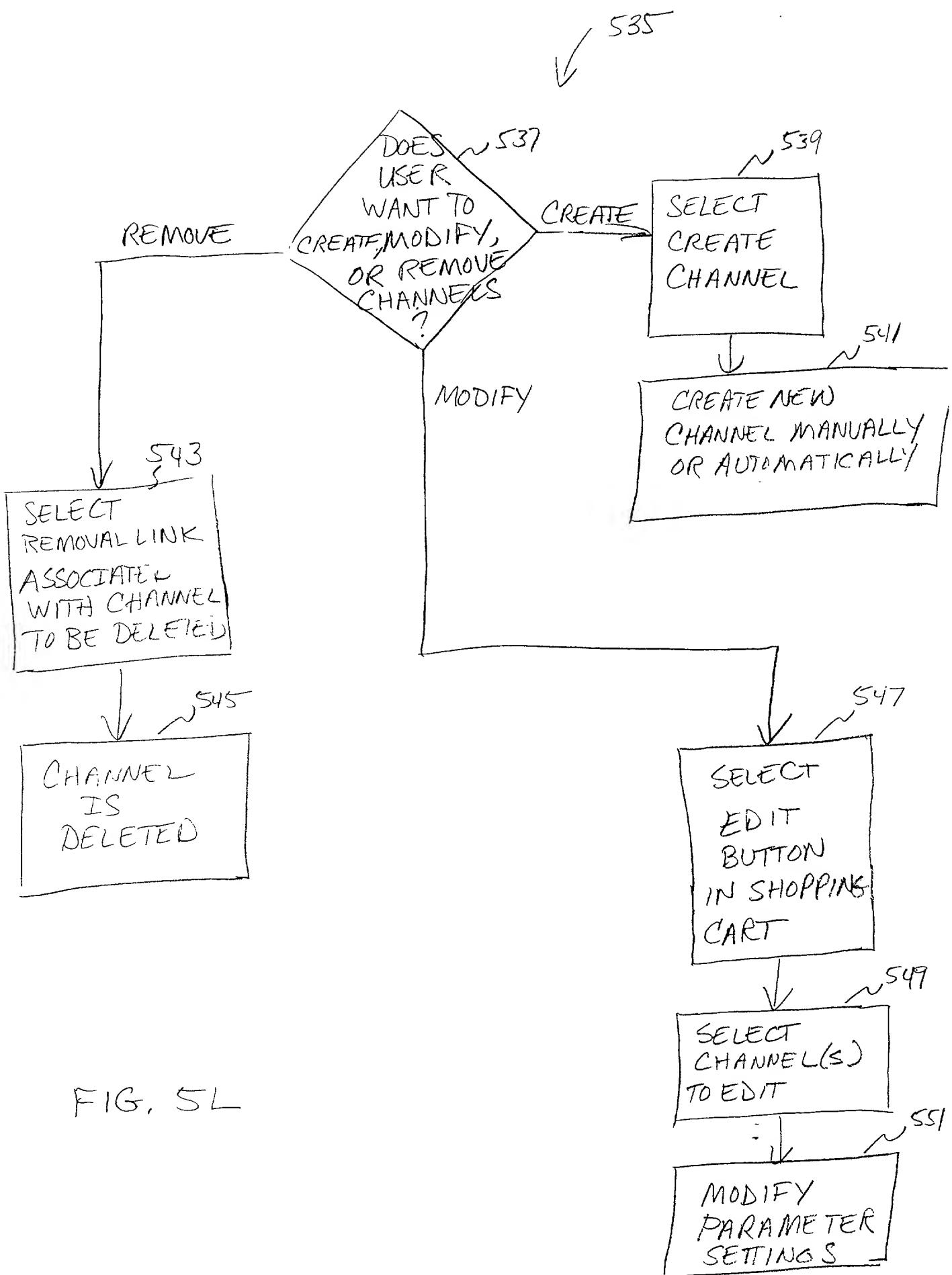


FIG. 5L

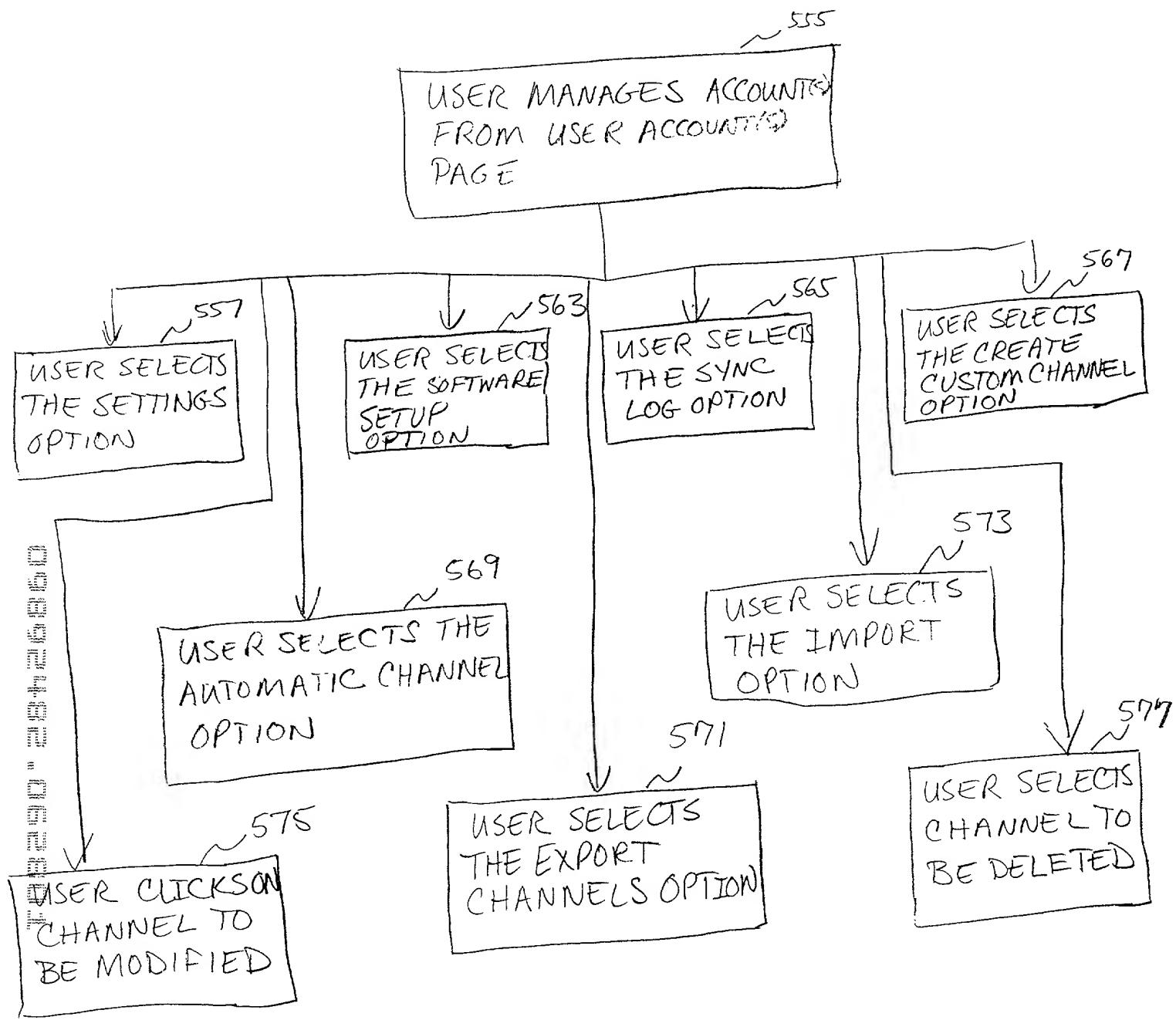


FIG. 5M

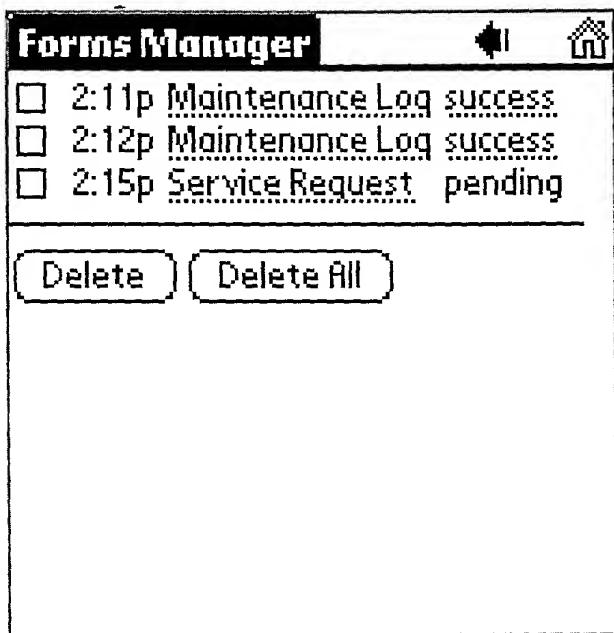


Fig. 6

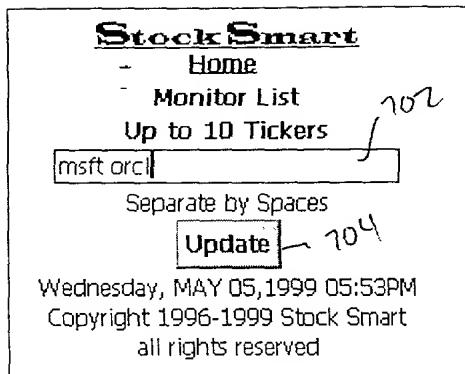


FIG. 7

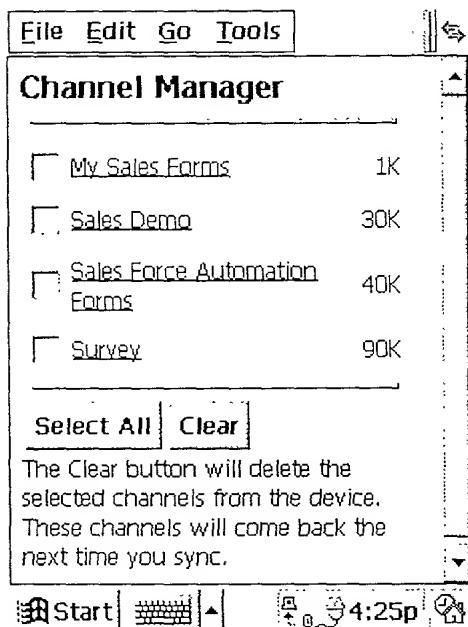


FIG. 8

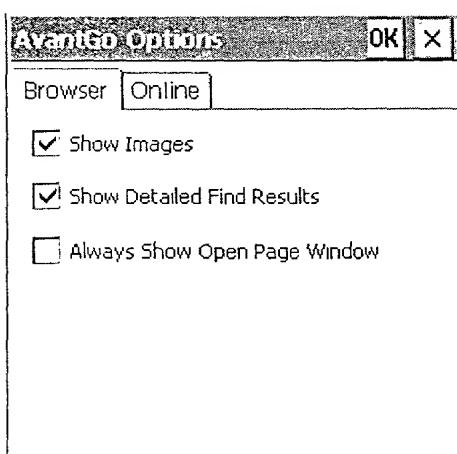


FIG. 9

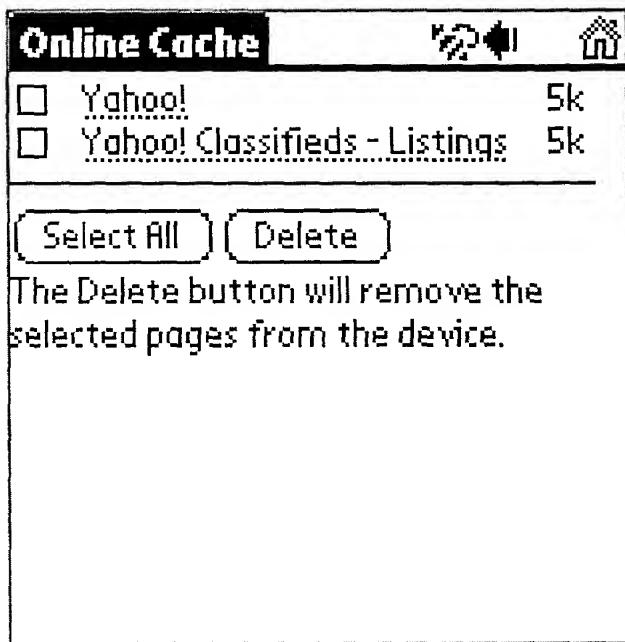


FIG. 10

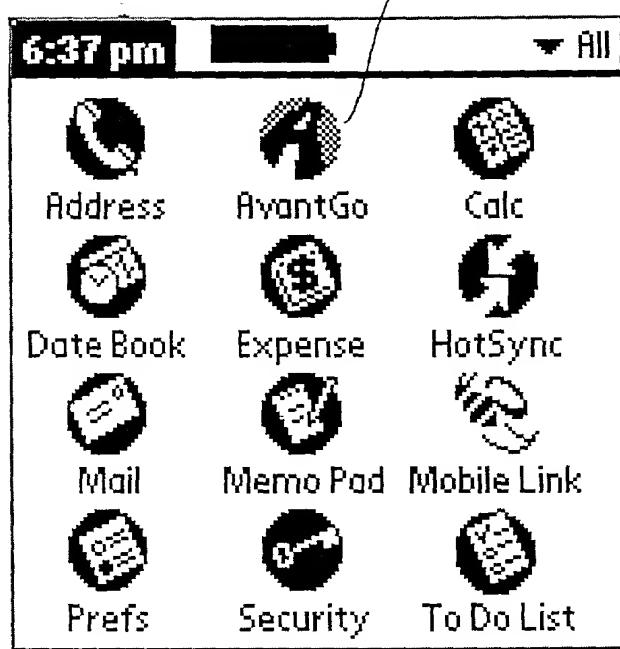


FIG. 11



Fig. 12

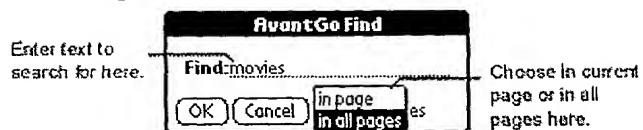


FIG. 13

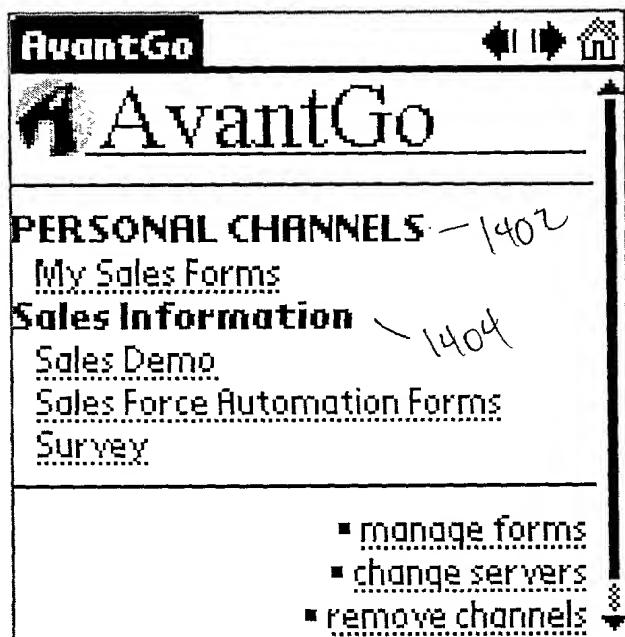


FIG. 14



AvantGo opens, showing your channels.
Tap a channels name to display it.

Fig. 15

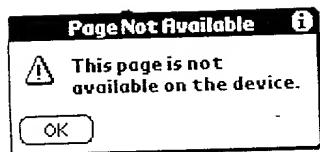


Fig. 4b

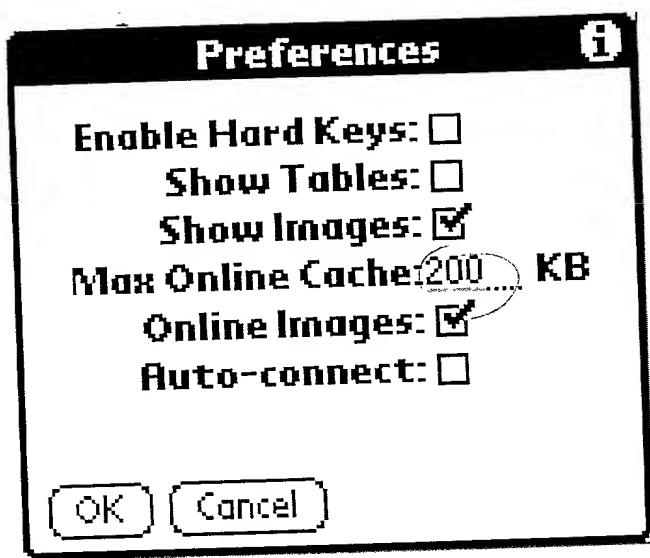


Fig. 17

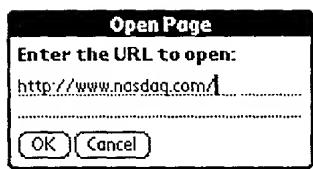


Fig. 17

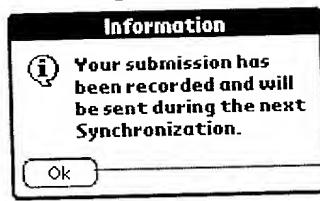


FIG. 19

Space used efficiently.

Attractive graphics enhance readability.

Tables arranged neatly.

PRODUCT	IN STOCK	BACK ORDERED	ORDERED
PX11 Deluxe	300	0	
Super V6	10	30	
XX36 Twin Turbo	22	200	

Fig. 20



Increase font



Decrease font

FIG. 21

FIG. 22

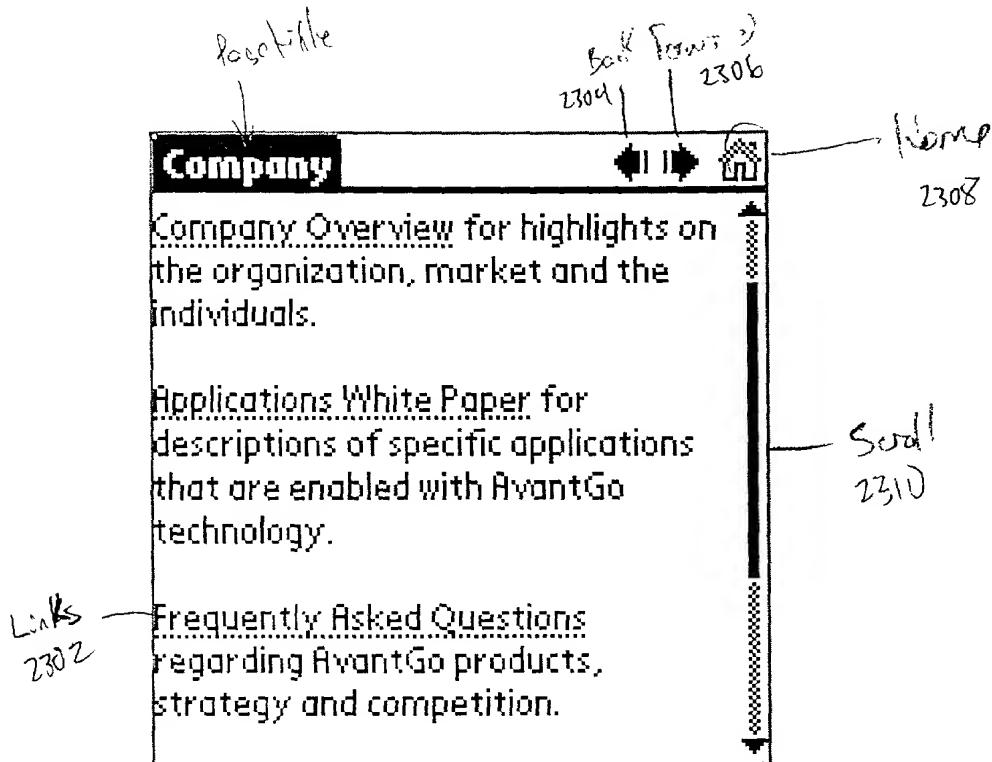


FIG. 23

2300 2301 2302 2303 2304 2305 2306 2307 2308

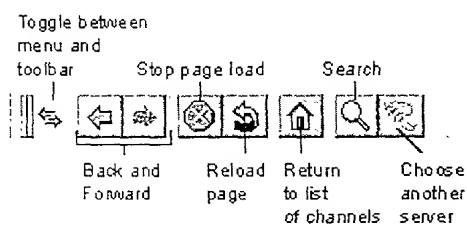


FIG. 24

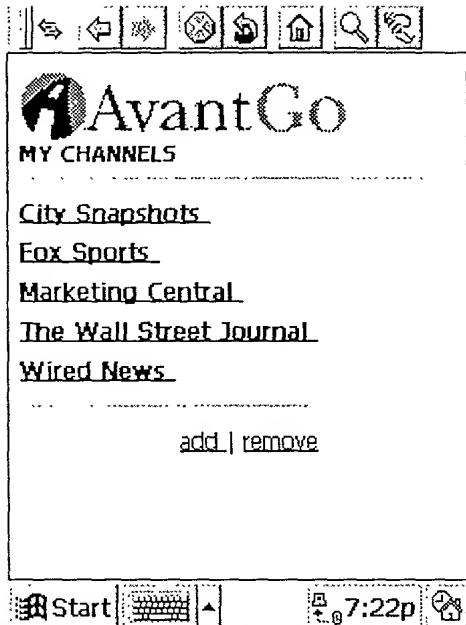


FIG. 25

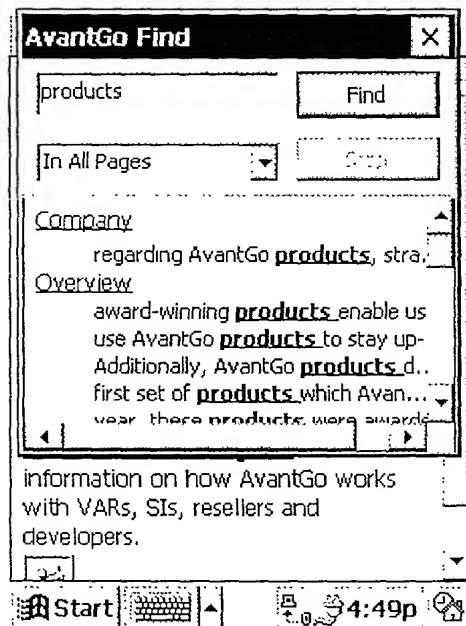


FIG. 26

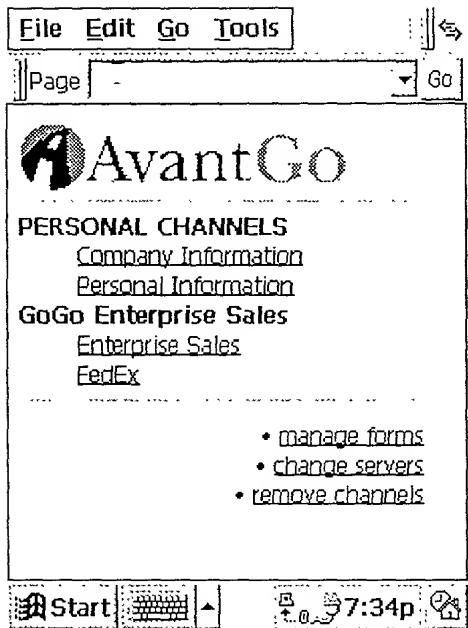


FIG. 27

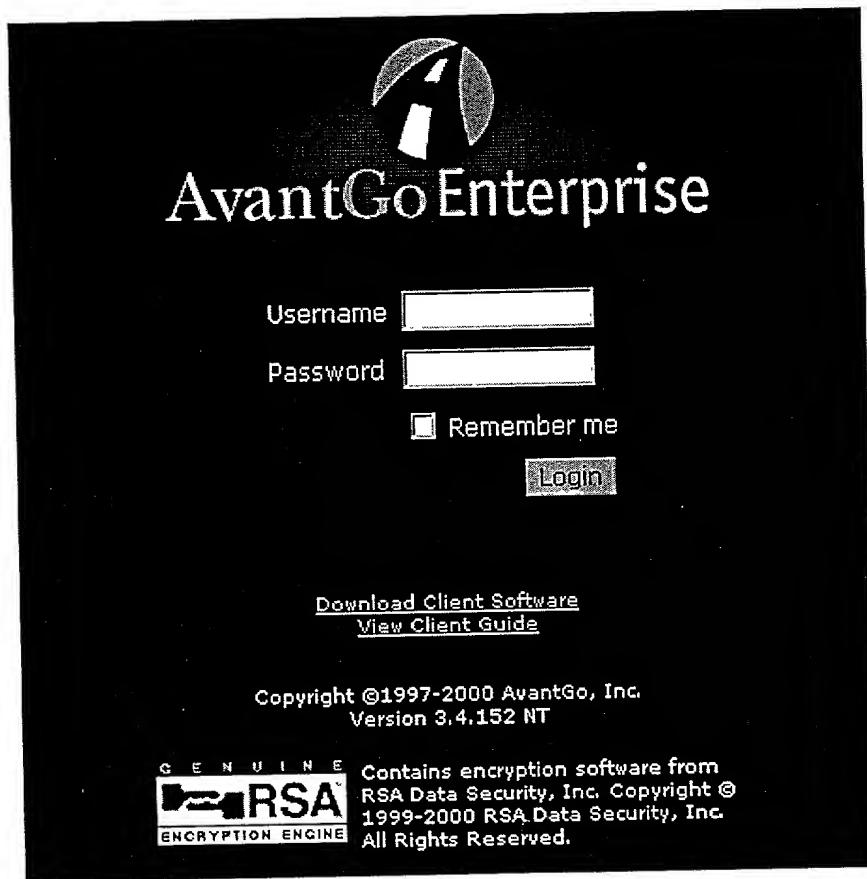


Fig. 28

Menu Content Branding Strip

MODE: Administrator

STATUS USERS GROUPS SETTINGS

Help Logout

T A S K S

Find User New User List All Users

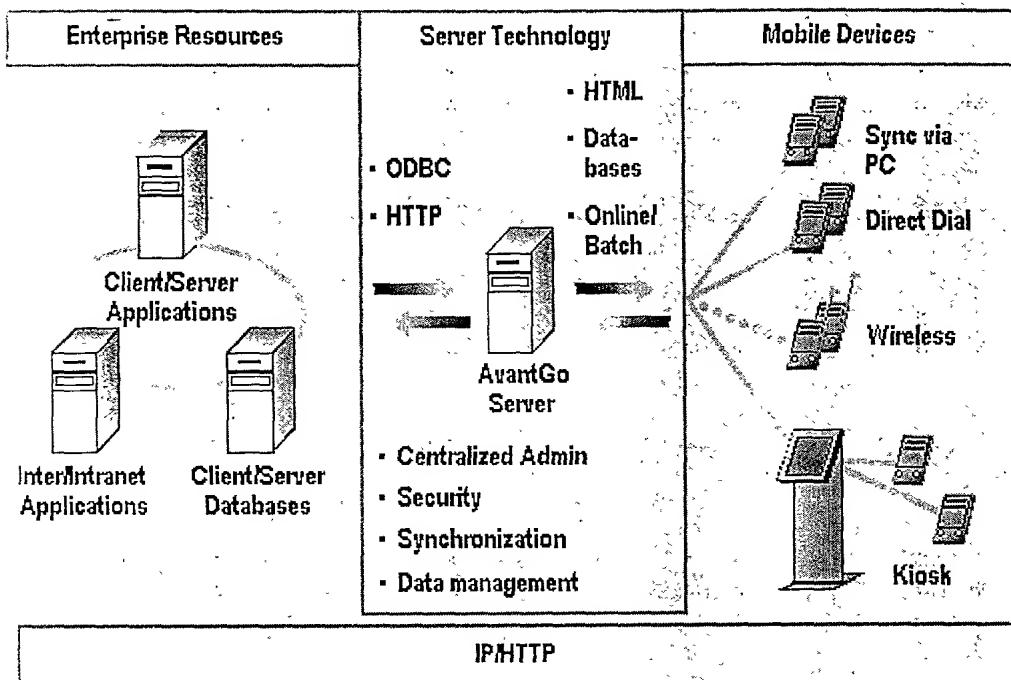
Sub-menu Special Links Legend

User Detail

To modify this user's user name, name, or password, edit the appropriate fields and click 'Save'. This user's personal channels and group memberships may also be edited.

User Name:	Administrator
First Name:	
Last Name:	
Password:	
Confirm Password:	
<input type="button" value="Save"/> <input type="button" value="Delete..."/> <input type="button" value="Reset"/>	

Fig. 29



Enter: Tutorial Click View to view/test the address of your channel.

Enter: http://syncdemo.avantgo.com/sfa_3_1/

Enter: 100

Enter: 3

Leave these fields unchecked.

Click the only once option.

Click the Create button.

New Channel for User MobileUser

Title: Untitled

Location: http://

Channel Size Limit: 100

Link Depth: 0

Include Images:

Follow Off-Site Links:

Allow Binary Distribution:

Hide from Users:

Send URLs:

Refresh:

only once

every sync

hourly every hour(s) only

daily

12 00 AM PM

on days:

Monday Tuesday Wednesday

Friday Saturday Sunday

FIG. 31

Refresh:

- on every sync
- every hour(s)
- only once
- daily at : on the following days:
 Monday Tuesday Wednesday Thursday
 Friday Saturday Sunday

When finished, click the "Save Channel" button:

Save Channel

FIG. 32

Update User Membership for Group Travel Itinerary

Manage this group's user memberships by selecting/deselecting the user check boxes and clicking update. To view information about a particular user, click the hyperlink name of the user.

User Name:	<input type="text"/>
First Name:	<input type="text"/>
Last Name:	<input type="text"/>
<input type="button" value="Find User"/>	

Search Results

FIG.33

User Name	Name
<input type="checkbox"/> joja	John Jack
<input checked="" type="checkbox"/> Natalie	Natalie Doe
<input type="checkbox"/> new	new test

Edit server profile

Server address	<input type="text"/>
Hostname	<input type="text" value="spicy"/>
Port	<input type="text" value="80"/>
Your account	<input type="text"/>
Username	<input type="text" value="natalie"/>
<input type="button" value="Set password..."/>	
Connection options	<input type="checkbox"/> Connect to this server. <input type="checkbox"/> Refresh all content. <input checked="" type="checkbox"/> Connect securely.
<input type="button" value="Remove..."/>	<input type="button" value="SYNC all..."/>
<input type="button" value="Start"/> <input type="button" value=""/> <input type="button" value=""/> 5:11p <input type="button" value=""/>	

FIG.34

MODE: Administrator

STATUS USERS GROUPS SETTINGS

Help Logout

Modify Channels of Natalie

For more information or to modify or delete a specific channel, click on the title. To create a new personal channel, click the New Personal Channel link on the left.

Title	Total Size	Last Sync
Personal Channels	0	Never Synced
Enterprise Intranet		
Federal Express		
GoGo Enterprise Sales	7	Wed Oct 06, 1999 12:32:55
Enterprise Intranet for Sales		Wed Oct 06, 1999 12:32:55
FedEx	93	Wed Oct 06, 1999 12:32:55
Sales Force Automation Forms	18	Wed Oct 06, 1999 12:32:55
Travel Itinerary		

Total: 118KB

[Create New Personal Channel](#) [Return to User](#)

Recent Sync History

The three most recent synchronizations are logged below. More information can be found in the [Complete Sync History](#).

[Wed Oct 06, 1999 12:32:44] (12 seconds)
 HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE_header.gif

[Wed Oct 06, 1999 12:32:34] (0 seconds)
 Completely out of sync, resequencing...

[Wed Oct 06, 1999 12:31:35] (13 seconds)
 HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE_header.gif

Clear Channel Cache
 During synchronization, the server updates existing channels and pages with modifications only. Clearing the channel cache will force all the channels and pages to be transferred to the device during the next synchronization.

Clear Cookies
 Cookies containing profile information about you are placed in your user profile by the sites that you visit. Clearing the cookies database may remove personalized information stored on your device by the web servers that you visit. Clearing cookies will disable the "remember me" feature from the login prompt.

Clear Authentication Info
 Some web servers require you to supply a user name and password to access the site. The server caches this authentication information and supplies it to the web server during synchronization. Clearing the authentication database will usually require you to reenter your user name and password the next time you visit a site that requires authentication.

FIG. 35

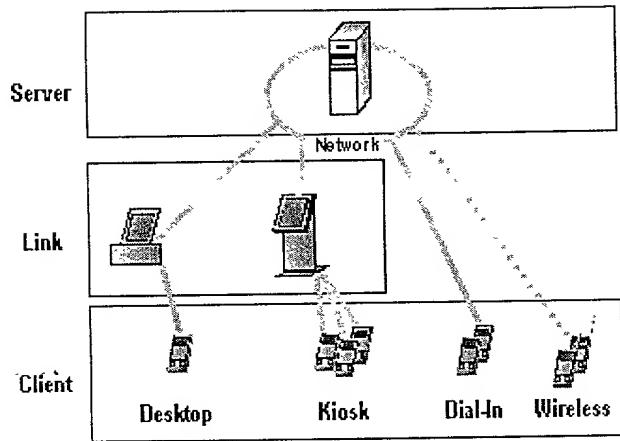
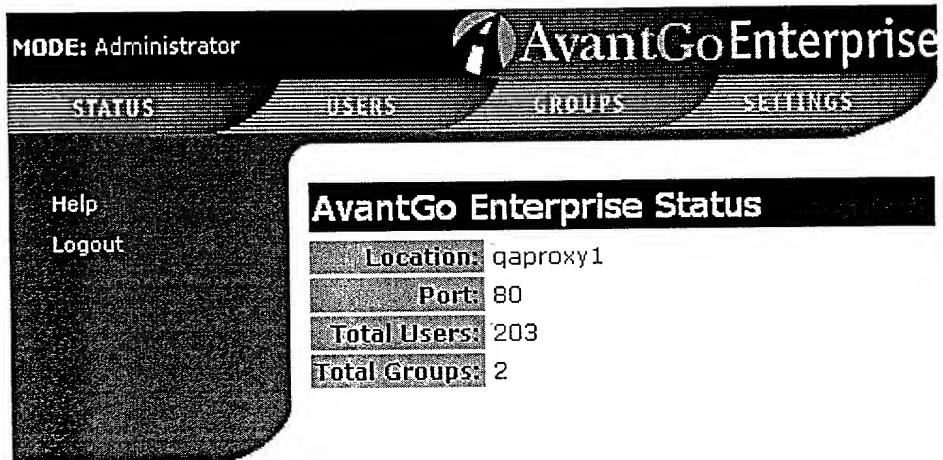
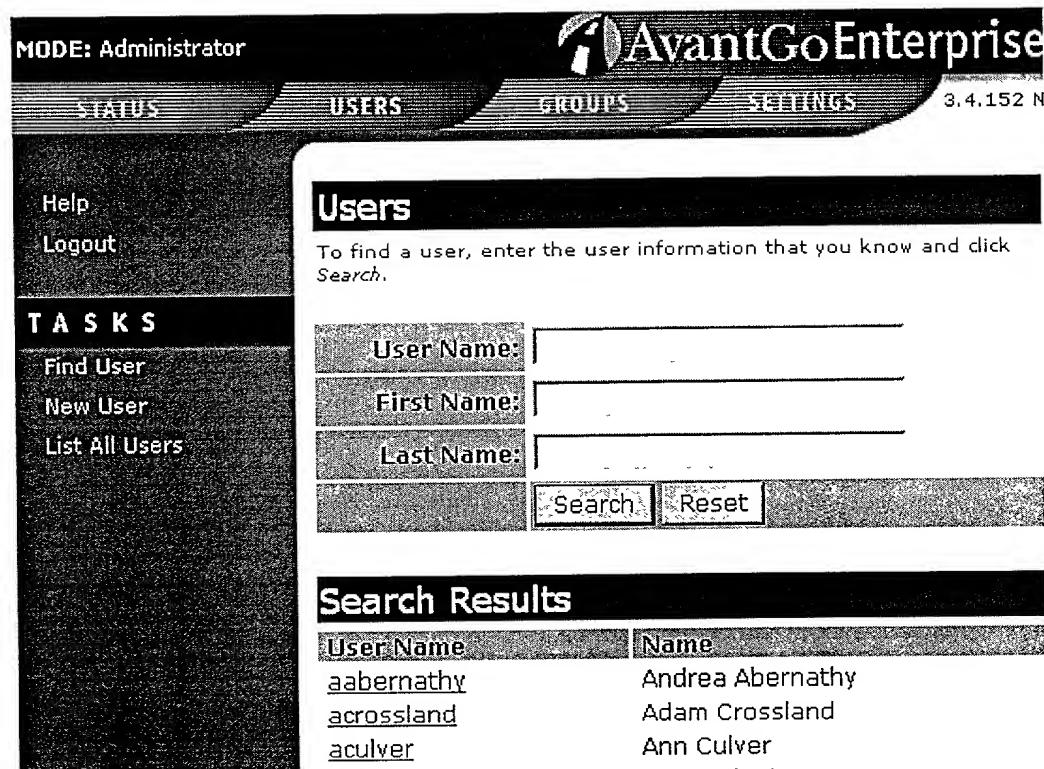


Fig. 3b



Patent Application Disclosure



MODE: Administrator

AvantGoEnterprise

3.4.152 NT

STATUS USERS GROUPS SETTINGS

Help Logout

T A S K S

Find User New User List All Users

User Detail

To modify this user's user name, name, or password, edit the appropriate fields and click 'Save'. This user's personal channels and group memberships may also be edited.

Adam Crossland

User Name:	acrossland
First Name:	Adam
Last Name:	Crossland
Password:	<input type="password"/>
Confirm Password:	<input type="password"/>
<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Reset"/>	

Fig. 39

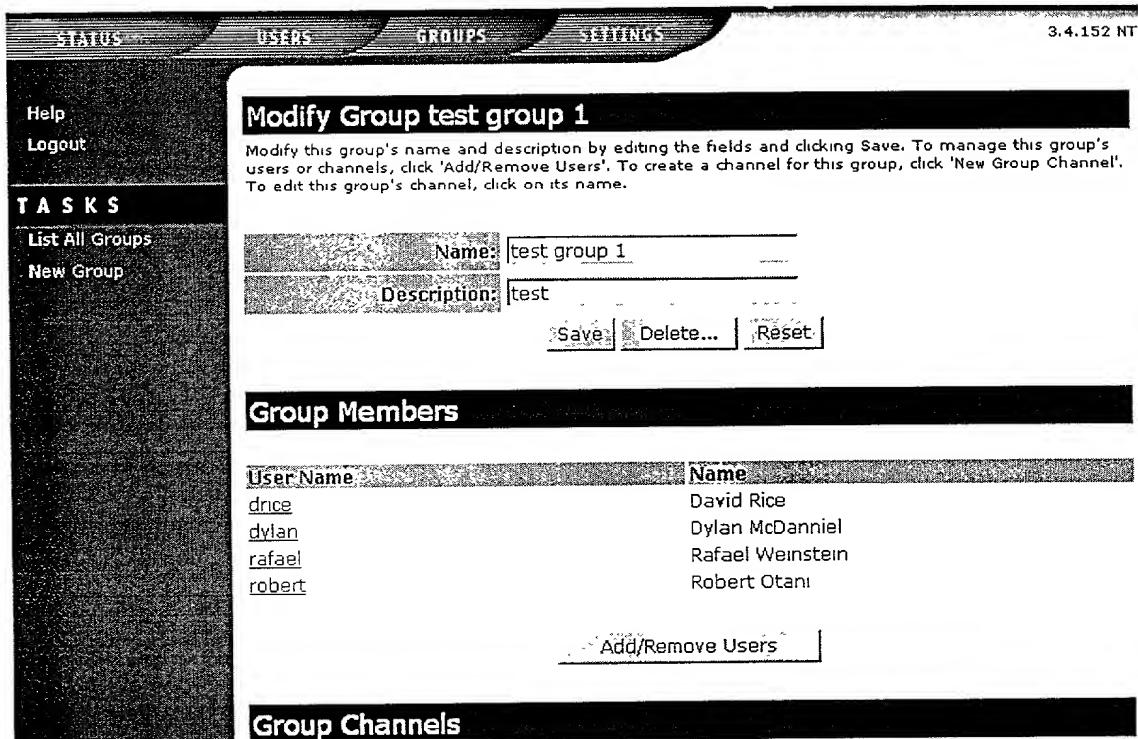


FIG. 40

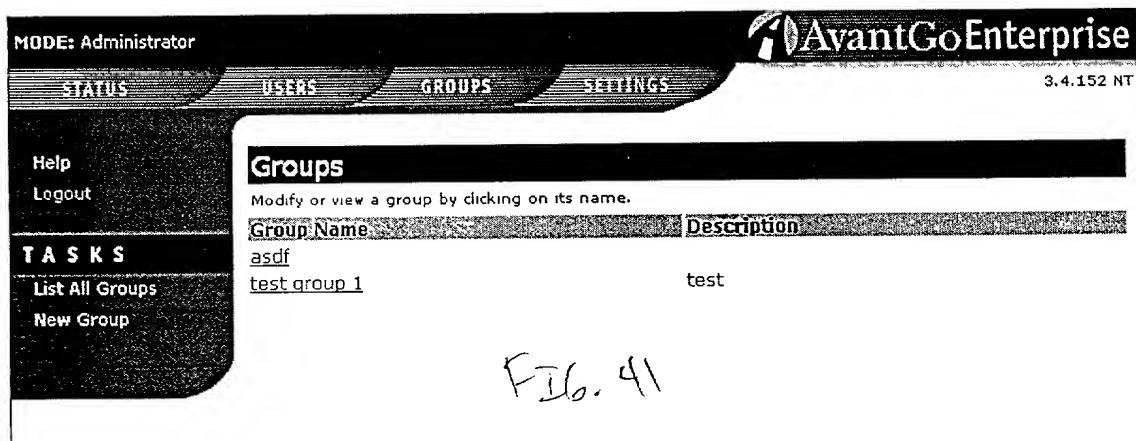


Fig. 41

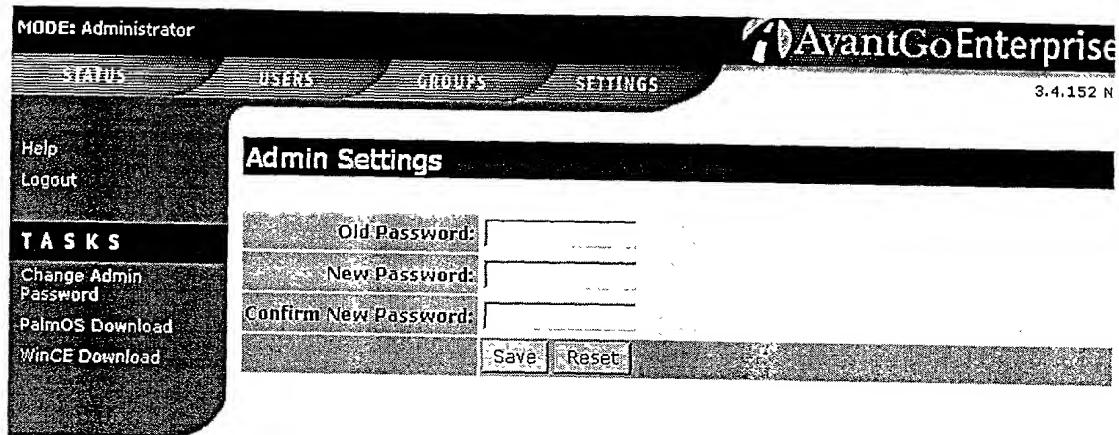


Fig. 42

2 AveriBox - Microsoft Internet Explorer

Address Go Back Forward Home Stop Refresh Links File

HOME ACCOUNT My Channels CHANNEL PROPERTIES BACK TO CHANNELS

Settings Software Setup Sync Log CHANNEL TITLE

 Fox Sports

CHANNEL SIZE

Maximum Channel Size: k
 Link Depth:

Include Images: Yes No
 Follow Off-Site Links: Yes No

CHANNEL REFRESH

REFRESH:

on every sync
 every hour(s)
 only once
 daily at AM on the following days:
 Monday Tuesday Wednesday Thursday
 Friday Saturday Sunday

SAVE CHANNEL CHANGES

FIG. 43



MY ACCOUNT

[My Channels](#)

[Settings](#)

[Software Setup](#)

[Sync Log](#)

Welcome, dkohn68

[Log out](#)

AUTOCHANNEL™

[BACK TO CHANNELS](#)

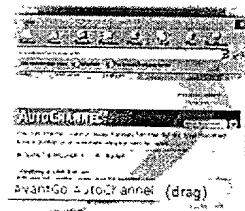
You can create AvantGo AutoChannels "on the fly" for your handheld from a button or a bookmark on your web browser.

INTERNET EXPLORER 4.0 OR HIGHER

Creating a Link Button

With your links toolbar visible, drag the AvantGo AutoChannel™ link below to the toolbar. Clicking on the button while browsing a website will let you add that website to your handheld device.

Drag this link: [AvantGo](#)
[AutoChannel](#)



Creating a Bookmark

Right-click on AvantGo AutoChannel™ link below and select "Add to Favorites...". Choosing this in your favorites will let you add the website you are browsing as an AvantGo channel on your handheld.

Right-click this link: [AvantGo](#)
[AutoChannel](#)

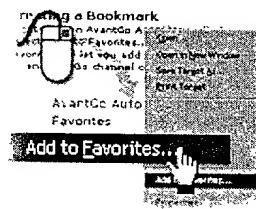


FIG. 44

AvantGo - Microsoft Internet Explorer

Address: https://avantgo.com/mydevice/create Go Back Home Links File

CREATE CHANNEL

My ACCOUNT

- My Channels
- Settings
- Software Setup
- Sync Log

AUTOCHANNEL (TM)

Take your favorite websites with you. You can create AvantGo AutoChannels on the fly for your handheld from a button or a bookmark on your web browser.

CHANNEL TITLE

Title: Untitled

Location (URL): http:// View

CHANNEL SIZE

Maximum Channel Size: 100 k

Link Depth: 0

Include Images: Yes No

Follow Off-Site Links: Yes No

CHANNEL REFRESH

REFRESH:

on every sync

every 2 hour(s)

only once

daily at 12:00 AM on the following days:

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

SAVE CHANNEL

FIG. 45

Avant

SEARCH CHANNELS

Look For:

GO

CHANNEL CATEGORIES

new channels

Business

4606

City/Regional

4608

Entertainment

Lifestyle

News

4610

SciTech

4612

Sports

4614

Travel

4616

Weather

Wireless

FEATURED CHANNELS

FOX SPORTS

UP-TO-THE-MINUTE SCORES, STATS,
STORIES AND COMMENTARY.

salon.com

A DISTINCTIVE VOICE ON
NEWS, POLITICS AND OPINION.

COOL CHANNELS [AVANTGO STAFF FAVORITES]

Autobytel

Buy your next car or keep up to date with your
current car's maintenance - all from your handheld.

Hollywood.com

Have movie listings for your zip code right at your
fingertips.

Restaurant Row

Find a great restaurant in your area and even make
reservations wirelessly.

MyDocsOnline

Sync your desktop documents to your handheld or
wirelessly email them to friends or colleagues.

Welcome, dkoehn68

Log out

MY ACCOUNT

EDIT

Fox Sports

Hoover's IPO Update

The Wall Street
Journal

The Weather
Channel

Upside Today

Wired News

Yahoo!

CREATE CHANNEL

F56.46

MY ACCOUNT

[My Channels](#)

[Settings](#)

[Software Setup](#)

[Sync Log](#)

4704

MY CHANNELS

BACK TO CHANNELS

ESTIMATED TOTAL SIZE FOR 7 CHANNELS: 253k
TOTAL MAX SIZE FOR 7 CHANNELS: 480k

<input type="checkbox"/> Fox Sports	26k
<input type="checkbox"/> Hoover's IPO Update	7k
<input type="checkbox"/> The Wall Street Journal	10k
<input type="checkbox"/> The Weather Channel	6k
<input type="checkbox"/> Upside Today	35k
<input type="checkbox"/> Wired News	69k
<input type="checkbox"/> Yahoo!	(estimated) 100k

DELETE: CHECKED:

CHANNEL TOOLS

[Create Custom Channel](#)

Add your own favorite website to your handheld device.

4702

[AvantGo AutoChannels™](#)

Create a channel for your handheld while surfing just by clicking a button or choosing a bookmark.

[Export Channels](#)

Generate URLs which can be used to add your channels to anyone's account.

[Import AvantGo version 1.x Channels](#)

Migrate older channels.data files for viewing on your latest AvantGo 3.x software.

FIG. 17

MY ACCOUNT

[My Channels](#)
[Settings](#)
[Software Setup](#)
[Sync Log](#)

ACCOUNT SETTINGS

[BACK TO CHANNELS](#)**CHANGE PASSWORD**

You will be asked to update changes to your device from this website.
If you've forgotten your password, you can [request a password reset](#).

Old Password:

New password:

Confirm password:

CHANGE EMAIL ADDRESS

This is where password reset messages will be sent if you forget your username or password.

Password:

New email address:

FIG. 48

AvantGo

Welcome, dkoehn68
[Log out](#)

[MY ACCOUNT](#) [CHANNELS](#)

[My Channels](#)
[Settings](#)
[Software Setup](#)
[Sync Log](#)

SOFTWARE SETUP

[BACK TO CHANNELS](#)

- ▶ [Download AvantGo Palm OS Client \(Windows\)](#)
- ▶ [Download AvantGo Windows\(R\) CE Client \(Windows\)](#)
- ▶ [Download AvantGo Connect™ \(Macintosh\)](#)
- ▶ [Configure Mobile Application Link](#)

To check your AvantGo Client version:

Tap *Tools > About AvantGo* on CE
or
Menu > Options > About AvantGo on Palm Devices.

The *About AvantGo* panel appears. On the bottom left is your version number.

[Update](#)

FIG. 49

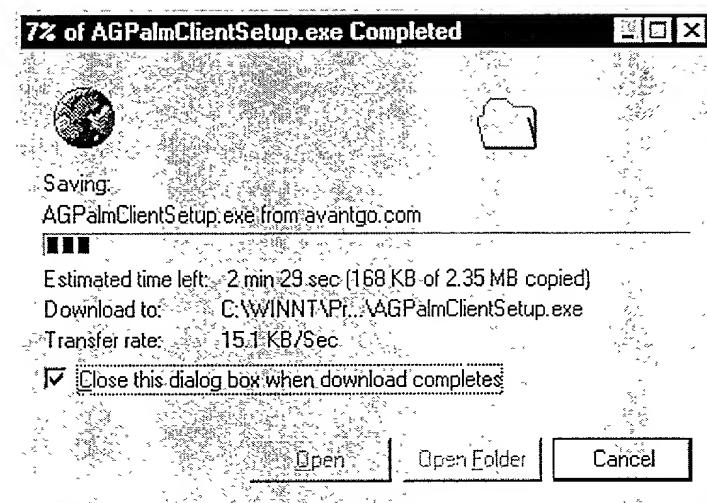


FIG. 50

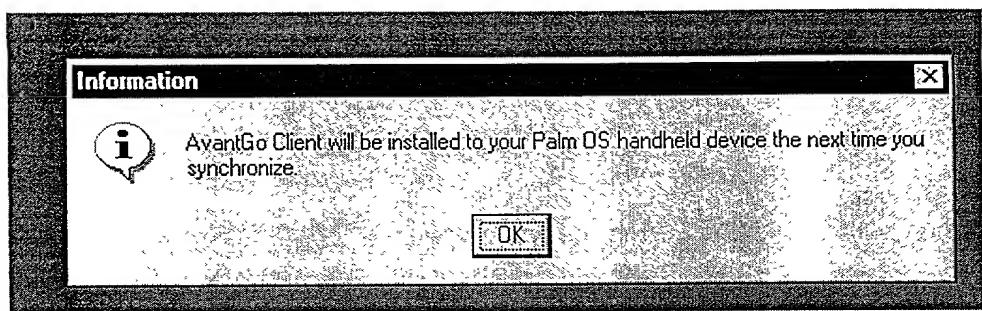
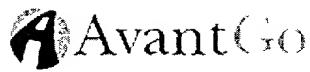


Fig.51



SETUP CHECKLIST

DATA CARD

► INSTALL

SYNCHRONIZE

CREATE ACCOUNT

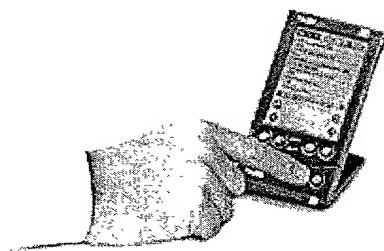
CONFIGURE

WIRE

SYNCHRONIZE

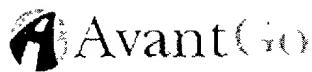
Place your device in its cradle and press the HotSync button.

When you synchronize, AvantGo 3.x will be installed on your device. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT >>

FIG. 52



SETUP CHECKLIST

► DOWNLOAD

► INSTALL

► SYNCRONIZE

► CREATE ACCOUNT

► FIGURE

► SYNCRONIZE

USE EXISTING ACCOUNT?

Select below to use this account or to create a new one

Username: dkoehn68

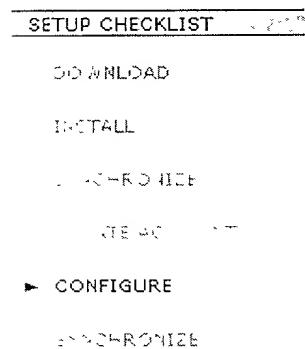
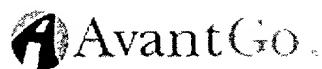
Email: dkoehn@avantgo.com

Use this account

Create a new account

NEXT>>

Fig. 53



CONFIGURE MOBILE LINK

Click the link below to configure Mobile Link™

By clicking below, you will ensure your AvantGo 3.x software is communicating properly with AvantGo's servers.

CLICK HERE
TO CONFIGURE

5402

NEXT >>

Fig. 54

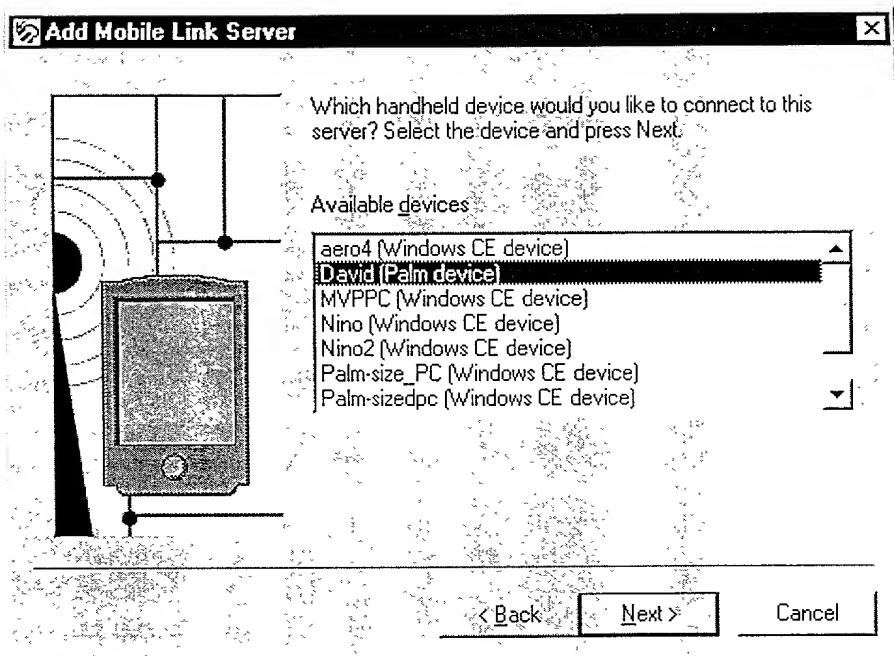


FIG. 55

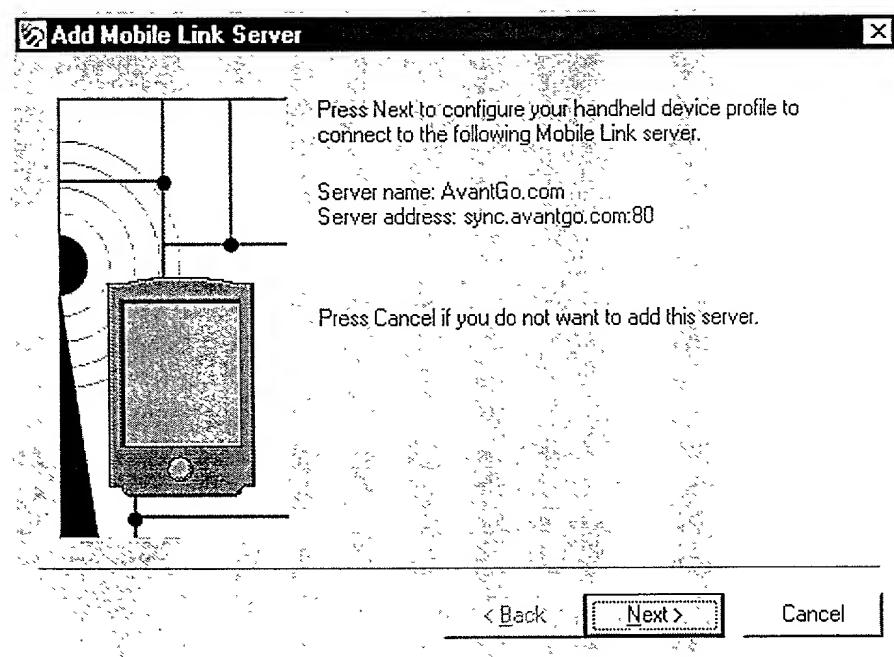


FIG. 56

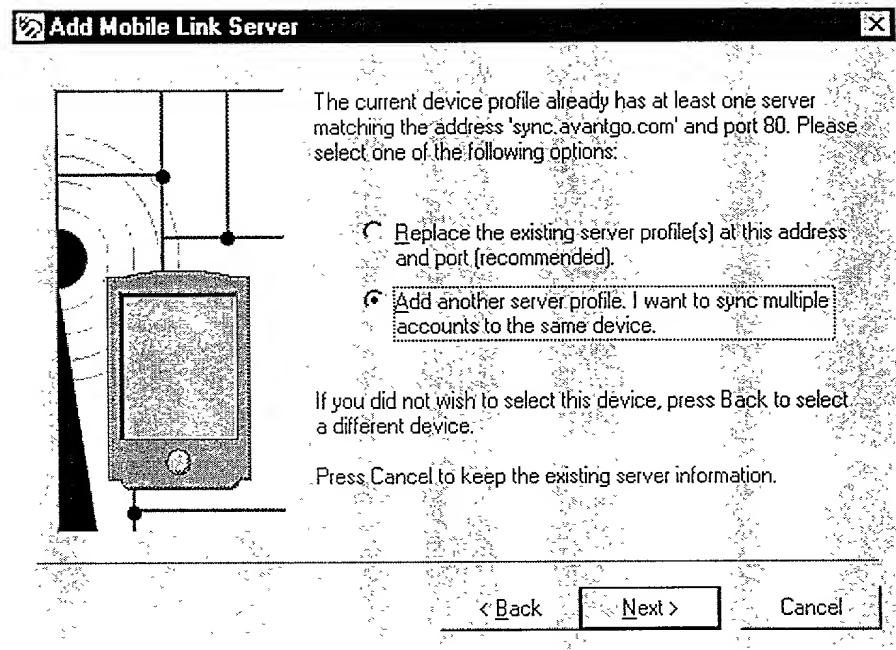


Fig. 57

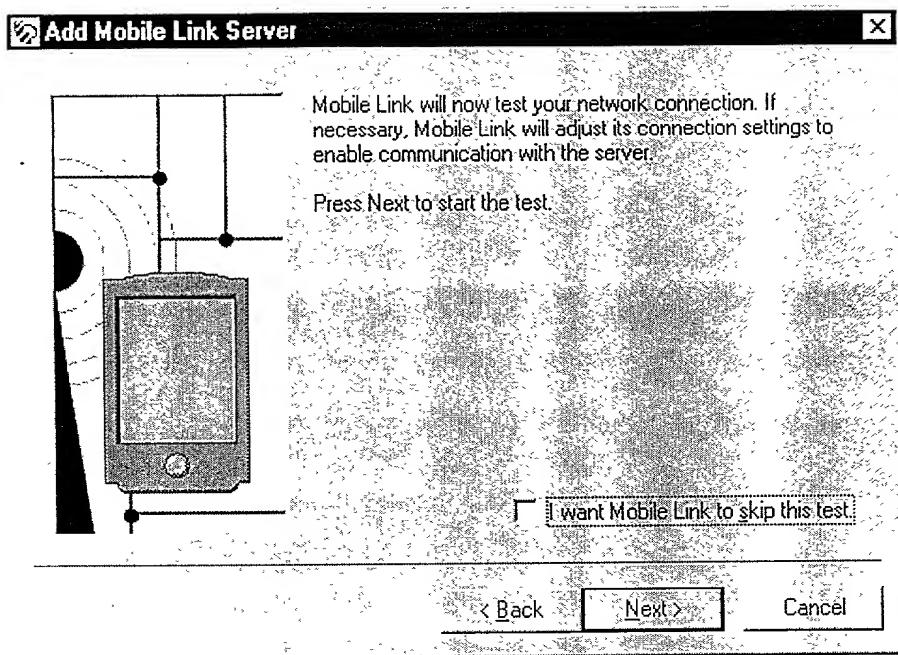


FIG. 58

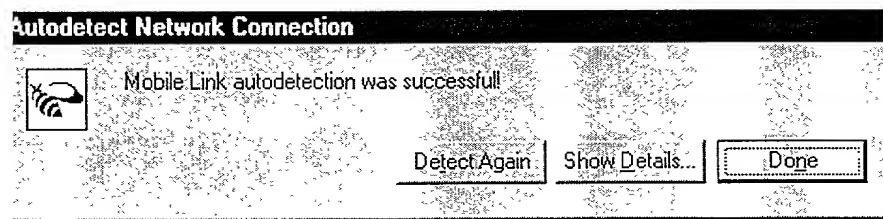


FIG. 59

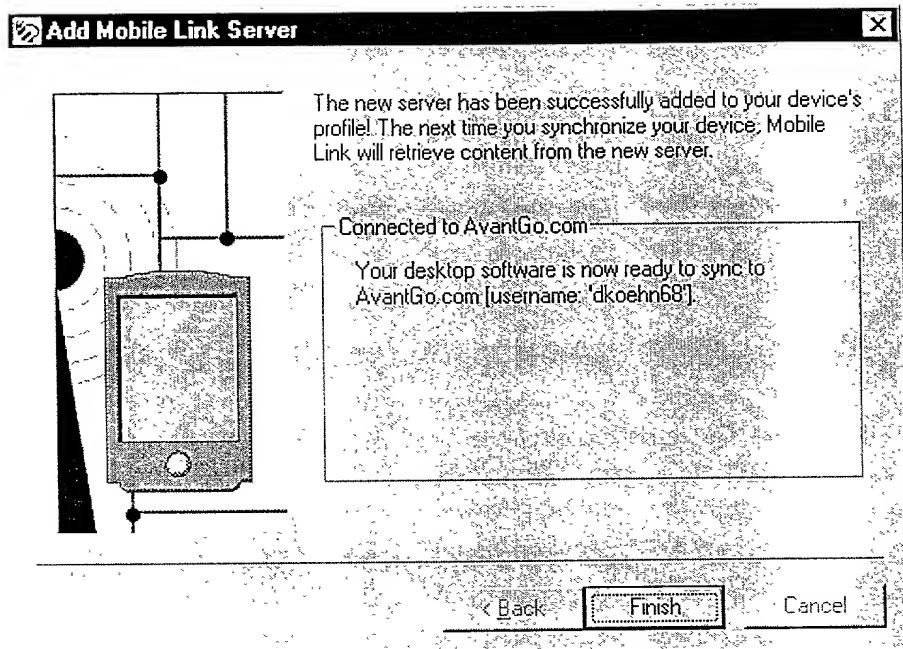
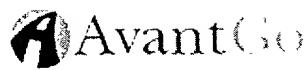


FIG. 60



SETUP CHECKLIST

CC NUMBER

POSTAL CODE

STATE/PROV

CREATE ACCOUNT

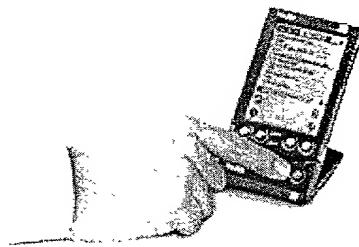
CREATE PROFILE

► SYNCHRONIZE

SYNCHRONIZE

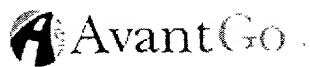
Place your device in its cradle and press the HotSync button

When you synchronize, your AvantGo 3.x software will connect to the Avantgo servers for the first time. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT>>

FIG. 61



SETUP CHECKLIST

- ✓ DOWNLOAD
- ✓ INSTALL
- ✓ SYNCRONIZE
- ✓ CREATE ACCOUNT
- ✓ CONFIGURE
- ✓ SYNCRONIZE

CONGRATULATIONS!

You are now an AvantGo user

Pick up your device, click on the "applications" button and select AvantGo to begin navigating channels. Use the links below to begin navigating AvantGo.

CHANNELS

Choose from 1000s of exciting channels from leading providers

ACCOUNT

View and edit your personalized account settings

FINISH >>

FIG. 62

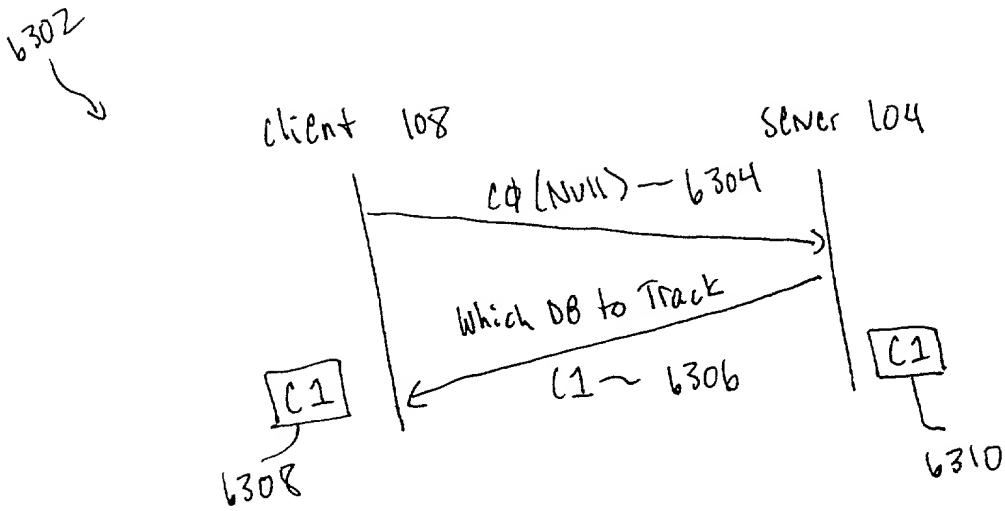


FIG. b3A

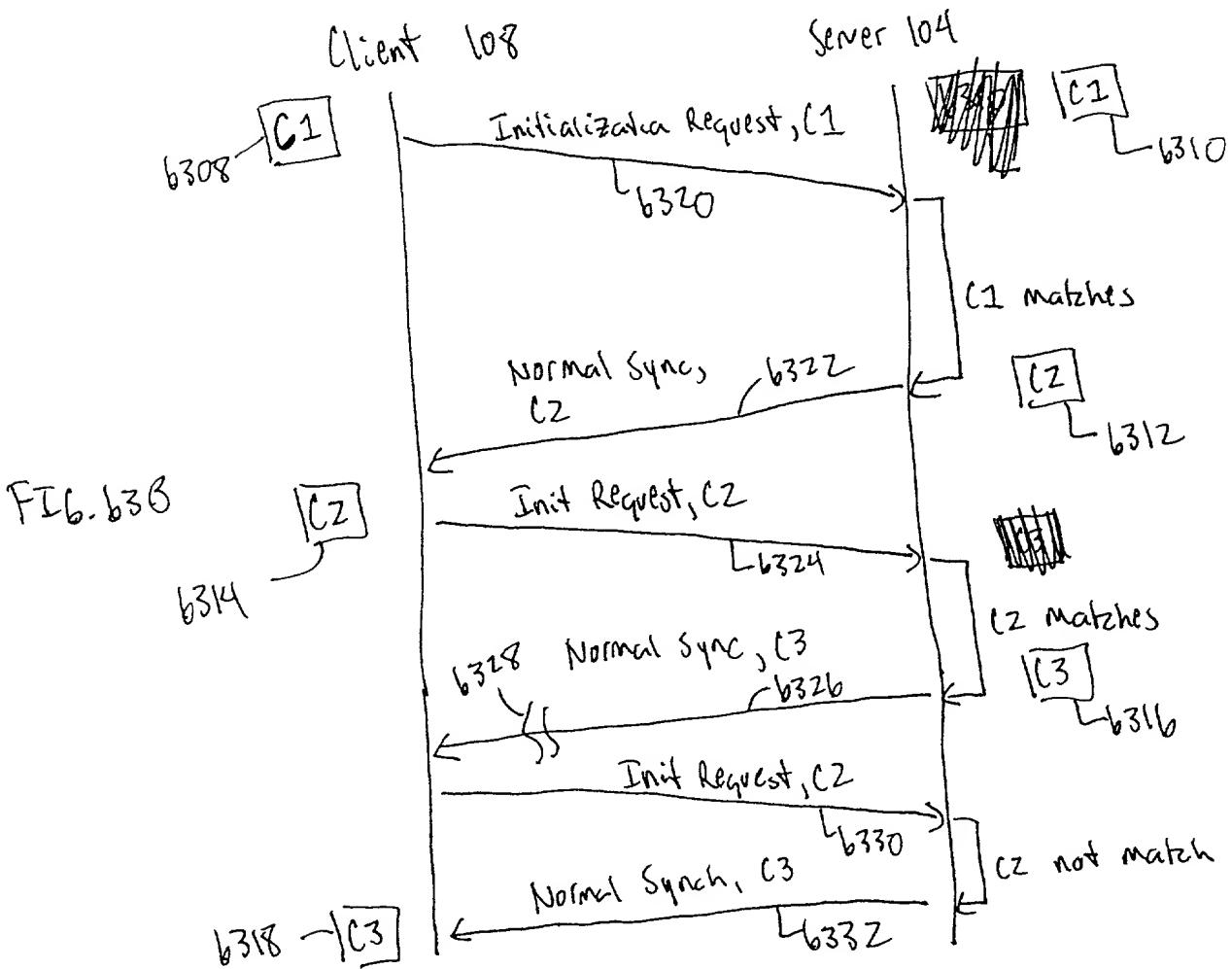


FIG. b3B